



LEADING KNOWLEDGE EXCELLENCE



# NATIONAL EDUCATION CODE MANUAL





# NATIONAL EDUCATION CODE MANUAL





@Ministry of Higher Education, 2010

Reproduced with kind permission of EUROSTAT from the original English edition entitled *Fields of Education and Training Manual* © European Communities, 1999.

Responsibility for the reproduction lies entirely with the Ministry of Higher Education, Malaysia.

National Library of Malaysia

Cataloguing-In-Publication Data

National education code manual

Bibliography: p.

ISBN: 978-983-3663-52-1

1. Education--Malaysia--Code numbers. 2. Education--Malaysia--Curricula.

379.595





# Contents

<b>Forewords</b>	4
Minister of Higher Education	4
Secretary-General, Ministry of Higher Education	5
<b>Establishment of the National Education Code</b>	6
Objectives	7
Guide to Using the NEC	7
<b>Structure of the National Education Code Classification</b>	8
Table 1: Structure for the NEC fields of education and training	8
Table 2: Summary of the NEC fields of education and training	8
Table 3: Listing on the NEC fields of education and training	9
<b>Inter-disciplinary and Broad Programmes</b>	14
Inter-disciplinary programmes	14
Broad programmes	15
Not specified or unable to classify	15
<b>Fields Description of National Education Code</b>	16
0 General Programmes	17
1 Education	18
2 Arts and Humanities	20
3 Social Sciences, Business and Law	24
4 Science, Mathematics and Computing	29
5 Engineering, Manufacturing and Construction	32
6 Agriculture and Veterinary	38
7 Health and Welfare	40
8 Services	43
<b>References</b>	47
<b>Appendices</b>	
Appendix A - Numerical Listing of Fields of Education and Training	48
Appendix B - Numerical Listing of Fields of Education and Training by Programme Contents	50



Y.B. Dato' Seri Mohamed Khaled bin Nordin

Minister of Higher Education

Ministry of Higher Education

Malaysia



## Minister of Higher Education

*... the NEC, endorsed as the national statistics standards on programme and training classifications, will also be used extensively for the planning and development exercises of education sector in the country.*

The nation is well under way in achieving its vision of becoming the regional hub of excellence for higher education. However, much more is required if we are to achieve our potential. We have rightly recognised that not only do we need to have sufficient numbers of higher educational institutions albeit government or private but we need to distinguish ourselves by offering educational programmes and qualifications of an exceptional quality.

The Ministry of Higher Education is committed to the continuous improvement of higher education in Malaysia. We have initiated necessary steps prompting government and private Institutions of higher learning

to comply with the Malaysian Qualification Framework (MQF) that all educational programmes obtain accreditation.

Our potential in offering high-quality and competitive programmes will be further strengthened through detailed planning and development of educational programmes. This will prevent unnecessary duplication or the proffering of courses not in accordance with market demands.

Governmental efforts to effectively plan, develop and monitor higher educational programmes can be further achieved via a systematic database, which led to the establishment of the National Education Code (NEC). NEC reflects

commitment and expertise to help streamline the classification of educational programmes and training currently offered by the increasing number of educational establishments.

I am optimistic that all parties concerned will demonstrate their support and dedication in helping to achieve our potential via their cooperation in utilising the NEC in the planning and development of their educational programmes.



A handwritten signature in black ink, appearing to read 'Zulkefli'.

*Datuk Dr. Zulkefli bin A. Hassan*  
*Secretary-General*  
*Ministry of Higher Education*  
*Malaysia*

## Secretary-General, Ministry of Higher Education

The National Education Code (NEC) serves to provide a coding system of education programmes and training that will support the accurate tracking, assessment and reporting of fields of study and programme registrations and completions in Malaysia. Besides helping to facilitate the collation of education surveys and databases, the NEC, endorsed as the national statistics standards on programme and training classifications, will also be used extensively for the planning and development exercises of education sector in the country.

The development of the NEC alludes to the International Standard Classification of Education 97 (ISCED97) developed by United Nations Educational Scientific and Cultural Organisation (UNESCO) in the field of education and the European Centre for Development of Vocational Training (CEDEFOP) together with the Statistical Office

of the European Communities (EUROSTAT) in the field of training. References to these international bodies certify the comparability and consistency of NEC to international standards. This is deemed necessary in order to establish Malaysia as a provider of high quality education and training by 2020.

The NEC outlines a set of comprehensive guidelines and standards to be adhered to by the providers of education and training in Malaysia and subsequently for the registration of their courses, irrespective of local, regional or international programmes. It is intended to facilitate the organisation, collection and reporting of data on programme undertakings and completions, using classifications that capture the majority of the education and training programmes in Malaysia. These standards will eminently propound reliable cross data references for the creation of comparative studies

and reports amongst the education providers in the country. This is in tandem with the standard operation procedures of data collection which are extensively executed by various public and private universities, public and private colleges, polytechnics and community colleges.

As such we are pleased to present the first edition of the NEC, fully confident that this will be an extremely useful and beneficial reference material for the stakeholders of the education and training sectors in the country. It is anticipated that the said sectors will endeavour to comply with the drawn up coding system as it is aimed at improving the education system of the nation.

On behalf of the Ministry of Higher Education (MoHE), I would like to acknowledge and thank the relevant stakeholders who have contributed valuable assistance towards the development of the National Education Code.

## Establishment of the National Education Code



The National Education Code Manual was formulated in response to the call of the Inter-Agency Technical Committee (IATC), chaired by the Head of the Statistics Department, Malaysia to set standardised codes, classifications and definitions among all governmental organisations. This move was deemed necessary to ensure availability of up-to-date uniformed statistical information in the country. Consequently, in the IATC's meeting (Vol. 3/2007), the Ministry of Higher Education (MoHE) has been given the ownership of the National Education Code.

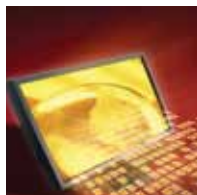
In lieu of that a Technical Working Committee comprising the Ministry of Higher Education (MoHE),

Ministry of Education, Ministry of Health, Ministry of Human Resources, Ministry of Agriculture and Agro-Based Industry and the Statistics Department of Malaysia was established. During the IATC Meeting Vol. 2/2009, the Committee unanimously agreed to and accepted the National Education Code which was formulated and presented by MoHE.

The NEC encompasses the fields of education and training. It is a suitable instrument for assembling, compiling, as well as presenting statistics related to education and training both locally and internationally. The NEC uses a three-digit code, with the first two-digit adhering to the International

Standard Classification of Education 97 (ISCED97) for classifying fields of education.

The third digit provides flexibility and the detailed fields at the three-digit level evoke a better understanding when allocating programmes of the two-digit fields. It should be emphasised that the three-digit levels of fields in the classification presented here have been synchronised with the fields of training classification. This system has been developed by CEDEFOP (European Centre for Development of Vocational Training) and EUROSTAT (Statistical Office of the European Communities) and has been adapted according to the needs of the Malaysian Education System.



### Objectives

This manual offers guidelines for a common classification to be employed by all organisations involved in the fields of education and training within the country.

Thus, it is hoped that the NEC will be the source of reference for classifying fields of education and training in Malaysia. This includes all education programmes, i.e, initial and continuing education, general education and technical & vocational training.

### Guide to Using of the NEC

- 1 When classifying an educational programme or a group of programmes, look at the overview of the classification on pages 9 to 12. Start by deciding which broad field it should be classified into. Next look at the narrow fields.
- 2 When you have found an appropriate narrow field, check the description of the field with regard to the subject content of the field on pages 17 to 46 and see which field best corresponds to the programme (programme group) that is to be classified. You may also refer to Appendix C which lists the programme contents in alphabetical order.
- 3 Each field description has a list of main subject content of the programmes as specified in the particular field descriptions. Check the list to make sure that the classifying programme is in the right code.
- 4 In cases where particular problems are encountered in the application of the field classification, it would be appreciated if the problems could be brought to the attention of MoHE to allow for the improvement of the NEC in the future.



# Structure of the National Education Code Classification

The NEC is organised on three digit levels in a hierarchical system for classifying fields of education and training. As indicated in **Table 1**, the first digit level is for 'broad field', the second digit level is for 'narrow field' and the third digit is for 'detailed field'.

There are altogether 9 broad fields, 25 narrow fields and 84 detailed fields in the NEC (**Table 2**). The first digit level (broad field) denotes the broad general groupings on fields of education and training. The second digit level (the narrow field) represents 'field of education' which is taken directly from the ISCED97's fields of education. The third digit level (detailed field) refers to specific instructional fields of education and training.

This third digit level classification is adapted from the *Fields of Education and Training Manual* which was produced by EUROSTAT in 1999 with some minor customisation to cater for the needs of our education system. Please refer to **Table 3** for the listing of the fields of education and training comprising the NEC.

**Table 1: Structure for the NEC fields of education and training\***

Broad Field	Narrow Field	Detailed Field	Programme Contents
x	xx	xxx	aaaaaaaaaaaaaaaaaaaa
		xxx	aaaaaaaaaaaaaaaaaaaa
	xx	xxx	aaaaaaaaaaaaaaaaaaaa
		xxx	aaaaaaaaaaaaaaaaaaaa
	xx	xxx	aaaaaaaaaaaaaaaaaaaa
		xxx	aaaaaaaaaaaaaaaaaaaa
x	xx	xxx	aaaaaaaaaaaaaaaaaaaa

**Table 2: Summary of the NEC fields of education and training\***

Digit	Name of Field	No. of Field
1-digit	Broad field	9
2-digit	Narrow field	Fields of education (ISCED97) 25
3-digit	Detailed field	Fields of education and training 84

**Table 3: Listing of the NEC fields of education and training\***

Broad Field		Narrow Field		Detailed Field	
0	GENERAL PROGRAMMES	01	Basic / broad, general programmes	010	Basic / broad, general programmes
		08	Literacy and numeracy	080	Literacy and numeracy
		09	Personal skills	090	Personal skills
1	EDUCATION	14	Teacher training and education sciences	141	Teaching and training = 143+144+145+146
				142	Education science
				143	Training for preschool teachers
				144	Training for teachers at basic levels
				145	Training for teachers with subject specialisation
				146	Training for teachers of vocational subjects
2	ARTS AND HUMANITIES	21	Arts	211	Fine arts
				212	Music and performing arts
				213	Audio-visual techniques and media production
				214	Design
				215	Craft skills
		22	Humanities	221	Religion
				222	Languages = 223+224
				223	National Language
				224	Other languages
				225	History and archaeology
				226	Philosophy and ethics
				227	History, philosophy and related subjects = 225+226

\*Notes: Table 1, 2 and 3 is adapted from the Field of Education and Training Manual, December 1999, EUROSTAT.

**Table 3 Listing of the NEC fields of education and training\***

Broad Field		Narrow Field		Detailed Field	
3	SOCIAL SCIENCES, BUSINESS AND LAW	31	Social and behavioural science	311	Psychology
				312	Sociology and cultural studies
				313	Political science and civics
				314	Economics
		32	Journalism and information	321	Journalism and reporting
				322	Library, information, archive
		34	Business and administration	341	Wholesale and retail sales
				342	Marketing and advertising
				343	Finance, banking, insurance
				344	Accounting and taxation
				345	Management and administration
				346	Secretarial and office work
				347	Working life
		38	Law	381	Syariah Law
4	SCIENCE, MATHEMATICS AND COMPUTING	42	Life science	421	Biology and biochemistry
				422	Environmental science
		44	Physical science	441	Physics
				442	Chemistry
				443	Earth science
		46	Mathematics and statistics	461	Mathematics
				462	Statistics

\*Notes: Table 1, 2 and 3 is adapted from the Field of Education and Training Manual, December 1999, EUROSTAT.



**Table 3: Listing of the NEC fields of education and training\***

Broad Field		Narrow Field		Detailed Field	
5	ENGINEERING, MANUFACTURING AND CONSTRUCTION	48	Computing	481	Computer science
				482	Computer use
		52	Engineering and engineering trades	521	Mechanics and metal work
				522	Electricity and energy
				523	Electronics and automation
				524	Chemical and process
				525	Motor vehicles, ships and aircraft
				526	Civil engineering
				527	Material engineering
		54	Manufacturing and processing	541	Food processing
				542	Textiles, clothes, footwear and leather
				543	Materials (wood, paper, plastic and glass)
				544	Mining and extraction
				545	Applied science
		58	Architecture and building	581	Architecture and town planning
				582	Building
6	AGRICULTURE AND VETERINARY	62	Agriculture, forestry and fishery	621	Crop and livestock production
				622	Horticulture
				623	Forestry
				624	Fisheries
		64	Veterinary	641	Veterinary

\*Notes: Table 1, 2 and 3 is adapted from the Field of Education and Training Manual, December 1999, EUROSTAT.

**Table 3: Listing of the NEC fields of education and training\***

Broad Field		Narrow Field		Detailed Field	
7	HEALTH AND WELFARE	72	Health	721	Medicine
				722	Medical services = 725+726+727
				723	Nursing and caring
				724	Dental studies
				725	Medical diagnostic and treatment technology
				726	Therapy and rehabilitation
				727	Pharmacy
		76	Social services	761	Child care and youth services
				762	Social work and counselling
8	SERVICES	81	Personal services	811	Hotel, restaurant and catering
				812	Travel, tourism and leisure
				813	Sports
				814	Domestic services
				815	Hair and beauty services
		84	Transport services	840	Transport services
		85	Environmental protection	851	Environmental protection technology
				852	Natural environments and wildlife
				853	Community sanitation services
		86	Security services	861	Protection of persons and property
				862	Occupational health and safety
				863	Military and defence

\*Notes: Table 1, 2 and 3 is adapted from the Field of Education and Training Manual, December 1999, EUROSTAT.

---

*This page is intentionally left blank.*



## Inter-disciplinary and Broad Programmes

This chapter serves to incorporate the criteria governing the classification of programmes as regard to those programmes that have more than one field of education and training. Users are to determine the classification of the inter-disciplinary programmes and broad programmes by following the guidelines and examples given below.

### Inter-disciplinary programmes

Inter-disciplinary programmes are programmes combining (generally two) fields of education and training. For these programmes (see example 1 to 3), the 'majority rule' should be used, i.e. the subject that dominates, decides into which field the programme should be classified. The criterion for dominating is normally the time spent on the subject.

### Example 1:

A programme consisting of both *441 Physics* and *442 Chemistry* should be classified according to which of the subjects dominates, i.e. the subject that consumes the most time.

### Example 2:

A programme combining study of retail sales with study of office work should also be classified according to which of the fields dominates; It could either be *341 Wholesale and retail sales* or *346 Secretarial and office work*.

In both Example 1 and Example 2, subjects fall into the same field of education but in two different fields of education and training. For these illustrations, explore the use of the

majority rule as both programmes are not wide enough to be classified as a 'broad programme' (please refer to the definition of broad programme).

### Example 3:

A programme that mainly includes subjects within the area of computer science should be allocated to field *481 Computer science* even if a certain amount of computer engineering (field *523 Electronics and automation*) is included.

In Example 3 subjects fall into two different narrow fields (2-digit level). In this scenario, the majority rule is again used.



### Broad programmes

Broad programmes mean that an education or training programme comprises parts of several - AT LEAST THREE - fields of education and training, mainly within the same field of education (2-digit level), of which none of the fields is clearly dominating. These broad programmes should be classified by using '0' as the third digit. This is applicable only for the fields of education (two-digit levels) that are divided into three or more fields of education and training.

It is to be noted that the '0' in the third position is to be used only to identify indication of broad programmes, and it should not be used as a rest code. However, a '0' in the second position, in principal, is not allowed.

### Example 4:

A programme in business and administration, consisting of management, financing, sales and marketing etc. should be classified as *340 Business and administration (broad programmes)*.

### Example 5:

For a programme in electrical installation, more time may be devoted to other supporting subjects such as language, mathematics, natural science etc. than the intended vocational subject. However, in this case, this programme should be classified as *522 Electricity and energy* and not as a broad programme.

Programmes aimed at one specific vocational field consisting of

supporting subjects from other fields are not considered as broad programmes in this context.

### Not specified or unable to classify

As a last resort, the '9' may be used in the third position if information about a programme is not available or if it is not possible to classify a specific programme into any of the detailed fields. A '9' in the second position is in principal not allowed, except that in data collections on the 2-digit level, '99' can be used if the 2-digit field is not known.

### Example 6:

A programme in engineering where additional information is not available, should be classified as 529.



## Field Description of National Education Code

The followings are the description of each field of education and training with regard to the subject content of the field and the list of programmes under each field description.

It should be pointed out that the codes *380 Law*, *640 Veterinary and 840 Transport services* are the applications of '0' in the third position when there is only one detailed field for the corresponding narrow field.

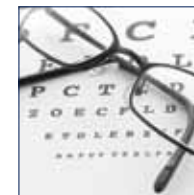
Meanwhile, the codes *140 Teacher training and education science (broad programmes)*, *210 Arts (broad*

*programmes)*, *220 Humanities (broad programmes)*, *310 Social and behavioural science (broad programmes)*, *340 Business and administration (broad programmes)*, *440 Physical science (broad programmes)*, *520 Engineering and engineering trades (broad programmes)*, *540 Manufacturing and processing (broad programmes)*, *620 Agriculture, forestry and fishery (broad programmes)*, *720 Health (broad programmes)*, *810 Personal services (broad programmes)*, *850 Environmental protection (broad programmes)* and *860 Security services (broad programmes)* are

the applications of '0' in the third position when classifying broad programmes comprising parts of at least THREE of the detailed fields of which none of them is dominating (refer to broad Programmes on page 14 and 15).

## 0 General Programmes

*General refers to basic and personal skills. Programmes with a subject emphasis should be classified under the broad fields of 1 to 8.*



### 010 Basic/broad general programmes

#### Basic/broad, general programmes

is programmes designed to give basic education in reading, writing and arithmetic along with elementary understanding of other subjects such as history, geography, natural science, social science, art & music and religious instructions. Basic general programmes are normally at pre-school, primary and secondary levels, etc.

Classified under this field are programmes with the following main content:

- Basic programmes .....
- Broad, general programmes .....
- General programmes with no special subject emphasis .....

#### Inclusion:

Broad, general programmes at upper secondary level with some emphasis

on contents such as humanities, social science and natural science but without neglecting other fields of knowledge are included in this field.

#### Exclusion:

Programmes that are considered as general in the programme orientation meaning (non vocational) but have a clear emphasis on a subject or a group of subjects, are excluded from this field and are included in one of the fields 1-8, depending on the subject.

### 080 Literacy and numeracy

**Literacy and numeracy** is programmes for illiterate adults, designed to teach basic reading, writing and some arithmetic.

The age group can be used to distinguish between field 010 *Basic/broad, general programmes* with this field.

Classified under this field are programmes with the following main content:

- Basic remedial programmes for adults .....
- Functional literacy .....
- Literacy .....
- Numeracy .....
- Simple literacy .....

### 090 Personal skills

**Personal skills** is programmes for enhancing personal skills, e.g. behavioural capacities, mental skills, personal organisational capacities, life orientation programmes.

Classified under this field are programmes with the following main content:

- Argumentation technique .....
- Assertiveness .....
- Communication skills .....

- Co-operation .....
- Development of behavioural capacities .....
- Development of mental skills .....
- Development of personal organisational capacities .....
- Enhancing personal skills .....
- Family life development training .....
- Job-seeking programmes .....
- Life orientation programmes .....
- Personal career planning .....
- Personal development .....
- Positive thinking .....
- Presentation technique .....
- Public speaking .....
- Self esteem skills .....
- Self-confidence .....
- Social competence .....
- Teamwork .....
- Time management .....

# 1 Education



## 140 Teacher training and education science (broad programmes)

**Teacher training and education science (broad programmes)** is the study of pedagogical theory combined with the practice of teaching (for example teacher training for pre-school, kindergarten, primary school, vocational, practical, non-vocational subject, adult education, teacher trainers for handicapped children, and general & specialised teacher training programmes) without specialising in basic teaching, special subject teaching, vocational teaching etc.

Classified under this field are programmes with the following main content:

Education technology.....  
Practical pedagogical courses.....  
Teacher education.....  
Teacher training.....

## 141 Teaching and training

**Teaching and training** is the study of the theories, methods and practice of teaching comprising parts from 143, 144, 145 and 146 fields of education and training, and none of these fields is clearly dominating.

### *Inclusion:*

The study of the theories, methods and practice of teaching without specialising in any of the detailed fields.

## 142 Education science

**Education science** is the study of the

learning process and the theories, methods and techniques of imparting knowledge to others. For example curriculum development in non-vocational and vocational subjects, educational assessment, testing and measurement, educational research and other education science.

Classified under this field are programmes with the following main content:

Curriculum development (theory)....  
Didactics.....  
Distance education methodology....  
Education science.....  
Educational assessment, testing and measurement.....  
Educational evaluation and research.....  
Pedagogical sciences (education).....

### *Exclusion*

Teacher training programmes which combine education science with the practice of teaching are excluded from this field and included in some of the fields for teacher training (143-146).

## 143 Training for pre-school teachers

**Training for pre-school teachers** is the study of the theories, methods and practice of teaching children between approximately 3-7 years of age within formal school settings at pre-primary level.

Classified under this field are programmes with the following main content:

Early childhood teaching.....  
Pre-primary teacher training.....



#### 144 Training for teachers at basic levels

##### Training for teachers at basic levels

is the study of the theories, methods and practice of giving children between 5-15 years of age a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, social science etc. Subject specialisation should be stressed less than in field 145 *Training for teachers with subject specialisation*. The study of teaching children with special needs is included in this field, likewise the study of teaching adults basic reading and writing.

Classified under this field are programmes with the following main content:

Class teacher training.....  
Elementary teacher education.....  
Home language teacher training.....  
Primary teaching.....  
Special education teaching.....

##### Inclusion:

The study of teaching adults basic reading and writing is included in this field.

#### 145 Training for teachers with subject specialisation

##### Training for teachers with subject specialisation

is the study of the theories, methods and practice of teaching a special subject, mostly at secondary or higher levels. Programmes included in this field often comprise study also of the subject/subjects that are going to be taught.

Classified under this field are programmes with the following main content:

Secondary teaching.....  
Special subject teaching.....  
Teacher training, theoretical subjects eg. English, Mathematics and History.....

##### Inclusion:

Teacher training programmes with both a vocational and a theoretical subject is included in this field.

##### Exclusion:

Teaching programmes in vocational, practical and artistic subjects is excluded from this field and included in field 146 *Training for teachers of vocational subjects*.

#### 146 Training for teachers of vocational subjects

##### Training for teachers of vocational subjects

is the study of the theories, methods and practice of vocational/practical teaching and training. Training for music teachers, art teachers and other teachers in aesthetic subjects are included, likewise training for teachers in physical training.

Classified under this field are programmes with the following main content:

Driver and safety teacher education...  
Driving instructor training.....  
Flight instructor training.....  
Nursing teacher training.....  
Physical education teacher training...  
Post-school teacher training.....  
Teacher training in arts and crafts.....  
Teacher training in commercial subjects.....  
Teacher training in music.....  
Teacher training in nursing.....  
Teacher training in technical subjects...  
Teacher training, physical training....  
Teacher training, vocational subjects...  
Technical teaching.....  
Training of instructors in companies etc...  
Training of trainers.....  
Vocational teacher training.....

##### Inclusion:

Training of driving instructors is included in this field. Training of trainers for work is included in this field.

##### Exclusions:

Training of sport trainers is excluded from this field and included in field 813 *Sports*.

Teacher training programmes with both a vocational and a theoretical subject is excluded from this field and included in field 145 *Training for teachers with subject specialisation*.

## 2 Arts and Humanities



### 210 Arts (broad programmes)

**Arts (broad programmes)** is the study of arts without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

**Arts** .....  
**Arts and crafts** .....

### 211 Fine arts

**Fine arts** is the study of visual forms of creative expressions, dealing with theory, history, techniques, performance and production in fine arts.

Classified under this field are programmes with the following main content:

**Aesthetics** .....  
**Art history** .....  
**Art studies** .....  
**Art theory** .....  
**Calligraphy** .....  
**Drawing (artistic)** .....  
**Etching (artistic)** .....  
**Fine art print making** .....  
**History of art** .....  
**Lithography** .....  
**Painting (art)** .....  
**Philosophy of art** .....  
**Sculpture** .....  
**Sketching (art)** .....

### Exclusions:

Training in ceramics, pottery etc is excluded from this field and included in field *215 Craft skills*.

Study of architecture is excluded from this field and included in field *581 Architecture and town planning*.

Teacher training in arts is excluded from this field and included in field *146 Training for teachers of vocational subjects*.

### 212 Music and performing arts

**Music and performing arts** is the study of the principles and techniques associated with performance involving music, speech, movement, mime, characterisation, improvisation and stage craft.

Classified under this field are programmes with the following main content:

Acting and directing .....
Choreography .....
Circus .....
Composition (music) .....
Conducting (music) .....
Dance .....
Directing (theatre) .....
Drama .....
Elocution .....
Fashion modelling .....
History of film and theatre .....
History of music .....
Music .....
Music and the stage .....
Performing arts .....
Theatre .....

**Inclusion:**

Study of music and performing arts history and theory is included in this field.

**Exclusion:**

Teacher training in music and other performing arts is excluded from this field and included in field 146 *Training for teachers of vocational subjects*.

**213 Audio-visual techniques and media production**

Audio-visual techniques and media production is the study of

techniques and skills to produce books, newspapers, radio/TV production, film/video production, recorded music production and graphic reproduction. It includes programmes in methods of colour reproduction, photography and computer graphics. Study of combining pictures, words and decorations in the production of books, magazines, posters, adverts etc.

Classified under this field are programmes with the following main content:

Animation .....
Binding and finishing (printing) .....
Bookbinding .....
Camera operating .....
Cinematography .....
Compositing (printing) .....
Composition equipment operating .....
Computer graphics .....
Computer type-setting .....
Desktop publishing .....
Disc jockey training .....
Film and TV editing .....
Film production .....
Graphic design .....
Graphic reproduction .....
Illustration .....
Lay-out .....

Media techniques .....
Multimedia production .....
Photo developing .....
Photography .....
Printing .....
Printing machining .....
Publishing design .....
Radio and TV production .....
Recorded music production .....
Screen printing .....
Silk screen printing .....
Sound and vision .....
Sound technique .....
Type-setting .....

**Inclusion:**

Programmes in desktop publishing and lay-out are included in this field.

**Exclusions:**

Separate programmes in using specific software applications for desktop publishing are excluded from this field and included in field 482 *Computer use*.

Study of journalism (wording and content of messages) is excluded from this field and included in field 321 *Journalism and reporting*.

**214 Design**

Design is the study of creatively

combining line, form and fabric in designing and constructing e.g. fashion garments, industrial products and interiors.

Classified under this field are programmes with the following main content:

Costume design .....
Design .....
Design of industrial products (artistic) .....
Fashion design .....
Industrial design (artistic) .....
Interior architecture .....
Interior decorating .....
Interior design .....
Stage designing .....
Three dimensional design .....
Window dressing .....

**Exclusions:**

Study of Building design is excluded from this field and included in field 581 *Architecture and town planning*.

Study of Industrial design is excluded from this field if emphasis is given to technical subjects and not to artistic design, and included in the appropriate field under 52 *Engineering and engineering trades*. Publishing design and graphic design

are excluded from this field and included in field 213 *Audio-visual techniques and media production*.

### 215 Craft skills

**Craft skills** is the study of techniques and skills in a chosen aspect of handicraft, such as jewellery, pottery, weaving, woodcarving etc.

Classified under this field are programmes with the following main content:

Ceramics (craft) .....  
 Conservation of cultural material .....  
 Craft programmes .....  
 Crafts, folk arts and artisanry .....  
 Decorative metal crafts .....  
 Embroidery (craft) .....  
 Fibre, textile and weaving arts .....  
 Floristry (flower arranging) .....  
 Glass arts and craft .....  
 Goldsmithing .....  
 Handicrafts .....  
 Jewellery design .....  
 Jewellery making (craft) .....  
 Lapidary and jewellery .....  
 Making of musical instruments (not industrial) .....  
 Musical instruments (repairing and tuning) .....  
 Needle craft .....  
 Picture framing .....

Silversmithing .....  
 Stone carving (craft) .....  
 Weaving (craft) .....  
 Woodcarving .....

#### Exclusion:

Study of industrial production of pottery, woven materials, embroidery etc. is excluded from this field and included in some of the detailed fields under broad field 5 *Engineering, manufacturing and construction*.

### 220 Humanities (broad programmes)

**Humanities (broad programmes)** is the study of humanities without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

Humanities .....

### 221 Religion

**Religion** is the study of religious beliefs, concepts, symbols, expressions, texts and spirituality.

Classified under this field are programmes with the following main content:

Religion .....  
 Religious history .....  
 Religious studies .....  
 Study of different religions .....  
 Study of sacred books .....

#### Inclusion:

Included in this field are programmes for children and young people, usually given in religious schools or seminars etc, aiming to develop an interest in the tenets of their religion and sufficient familiarity with its philosophy to assist in the propagation of their faith.

#### Exclusion:

Basic programmes given in religious schools, seminars etc. containing religious instruction but not emphasising it or leading to a religious vocation, are excluded from this field and included in 010 *Basic / broad, general programmes*.

### 222 Languages

**Languages** is the study of the structure and composition of various languages which include 223 *National language* and 224 *Other*

*languages* and none of these fields is clearly dominating. It includes the study of related cultures, literature and linguistics.

### 223 National language

**National language** is the study of Bahasa Melayu or Malay language, including the study of related literature and linguistics.

Classified under this field are programmes with the following main content:

**Creative writing (Malay language)**.....  
**Interpretation (Malay language)**.....  
**Linguistics (Malay language)**.....  
**Literature (Malay language)**.....  
**Sign language (Malay language)**.....  
**Translation (Malay language)**.....

### 224 Other languages

**Other languages** is the study of languages such as English, French, German, Spanish, Mandarin, Tamil, Arabic etc. including the study of related literature and linguistics.

Classified under this field are programmes with the following main content:

**Creative writing (Other languages)**...

**Interpretation (Other languages)**.....  
**Linguistics (Other languages)**.....  
**Literature (Other languages)**.....  
**Sign language (Other languages)**.....  
**Translation (Other languages)**.....

#### Exclusion:

National language is excluded from this field.

### 225 History and archaeology

**History** is the study of past events, especially the political, social and economic development of a country, a continent or the world. Study of comparative literature is included in this field, likewise the study of history of science and ideas.

**Archaeology** is the study of ancient civilisations by scientific analysis of what is found in the ground.

Classified under this field are programmes with the following main content:

**Archaeology**.....  
**Comparative literature**.....  
**Cultural history**.....  
**History**.....  
**History and philosophy of science and technology**.....  
**History of science and ideas**.....

**Literature history**.....  
**Medieval and renaissance studies**.....  
**Museology**.....

#### Exclusions:

Study of History of art is excluded from this field and included in field 211 *Fine arts*.

Study of Music and performing arts history is excluded from this field and included in field 212 *Music and performing arts*.

Study of Economic history/history of economics is excluded from this field and included in field 314 *Economics*.

### 226 Philosophy and ethics

**Philosophy and ethics** is the study of philosophy, ethics and related subjects dealing with the conception of life.

Classified under this field are programmes with the following main content:

**Ethics**.....  
**Logic**.....  
**Morals**.....  
**Philosophy**.....

#### Exclusions:

Study of religion is excluded from this field and included in field 221 *Religion*.

Study of Philosophy of arts is excluded from this field and is included in field 211 *Fine arts*.

### 227 History, philosophy and related subjects

**History, philosophy and related subjects** is the study of past events, philosophy and related subjects comprising parts from 225 and 226 fields of education and training, and none of these fields is clearly dominating.

## 3 Social Sciences, Business and Law



### 310 Social and behavioural science (broad programmes)

**Social and behavioural science (broad programmes)** is the study of social and behavioural science without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

**Behavioural sciences**.....  
**Social sciences**.....

### 311 Psychology

**Psychology** is the study of the human mind and behaviour as a result of individual differences, experience and environment.

Classified under this field are programmes with the following main content:

**Conversational therapy**.....  
**Development and child psychology**..  
**Psychoanalysis**.....  
**Psychology**.....  
**Psychotherapy**.....

### 312 Sociology and cultural studies

**Sociology and cultural studies** is the study of human beings and the way they behave in groups and in relation to society. Study of ethnology and social anthropology is included in this field, likewise the study of human and social geography.

Classified under this field are programmes with the following main content:

**Criminology**.....  
**Cultural geography**.....  
**Cultural studies**.....  
**Demography/population studies**....  
**Ethnology**.....  
**Futurology**.....  
**Gender studies**.....  
**Geography (social)**.....  
**Human geography**.....  
**Regional cultures**.....  
**Social anthropology**.....  
**Social conflict theory**.....  
**Social geography**.....  
**Sociology**.....  
**Women studies**.....

### Exclusion:

Social welfare programmes where emphasis is given to practical social work are excluded from this field and included in field 762 *Social work and counselling*.



### 313 Political science and civics

**Political science and civics** is the study of government and political principles or practice. Subjects dealing with the rights and duties of the citizens are included.

Classified under this field are programmes with the following main content:

Civics.....  
Human rights.....  
International relations.....  
Peace and conflict studies.....  
Political history.....  
Political science.....  
Politics.....

#### Exclusion:

Study of political economics is excluded from this field and included in the field *314 Economics*.

### 314 Economics

**Economics** is the study of economic policy, economic theory and economic decision making.

Classified under this field are programmes with the following main content:

Econometrics.....  
Economic history.....  
Economics.....

International economics.....  
Macro economics.....  
National accounts.....  
Political economy.....

#### Exclusion:

Study of economics where emphasis is given to business studies is excluded from this field and classified as *340 Business and administration (broad programmes)*.

### 321 Journalism and reporting

**Journalism and reporting** is the study of the theory and practices of journalism/reporting as part of the field of mass communication. Journalism and reporting is about the wording and content of messages. It comprises news reporting, writing commentaries and feature stories of public interest etc.

Classified under this field are programmes with the following main content:

Broadcast journalism.....  
Communication.....  
Information.....  
Journalism.....  
Mass communication.....  
News reporting.....  
Publishing (dissemination of messages).....

#### Exclusions:

Study of techniques for mass communication (e.g. printing and radio/TV production) is excluded from this field and included in field *213 Audio-visual techniques and media production*.

Study of lay-out and publishing design is excluded from this field and included in field *213 Audio-visual techniques and media production*.

Study of public relations is excluded from this field and included in field *342 Marketing and advertising*.

### 322 Library, information, archive

**Library, information, archive** is the study of the methods of selecting, acquiring, organising and storing collections of information, and facilitating the use of information. Library programmes are included in this field.

Classified under this field are programmes with the following main content:

Archival sciences.....  
Documentation.....  
Information science.....

Information searching.....  
 Librarianship training.....  
 Library programmes.....  
 Museum documentation.....

### 340 Business and administration (broad programmes)

**Business and administration (broad programmes)** is the study of the theory and practice of planning, directing, organising and co-ordinating the resources of private and public organisations and institutions.

Classified under this field are programmes with the following main content:

Business and administration.....  
 Business economics.....  
 Business studies.....

#### **Inclusion:**

Study of business and administration where emphasis is not given towards any of the detailed fields under *34 Business and administration* is included in this field.

#### **Exclusion:**

Business programmes where emphasis is given to any of the detailed fields under *34 Business*

*and administration* (management, administration, marketing etc) should be classified according to the specialisation.

### 341 Wholesale and retail sales

**Wholesale and retail sales** is the study of buying and selling goods and services, including stock management, pricing practice, loss prevention, sale systems and procedures. It includes the study of the workings and current trends of the wholesale and retail industries. Selling of buildings and properties is also included.

Classified under this field are programmes with the following main content:

Auctioneering.....  
 Buying and selling.....  
 Consumer services.....  
 Dairy retailing.....  
 Demonstration techniques.....  
 Property sales.....  
 Purchasing.....  
 Purchasing, procurement and contracts.....  
 Real-estate business.....  
 Retailing.....  
 Sales representatives.....  
 Stock-keeping.....

Telephone selling.....  
 Warehousing.....  
 Wholesaling.....

#### **Inclusion:**

Study of buying and selling buildings and properties is included in this field.

### 342 Marketing and advertising

**Marketing and advertising** is the study of exchange processes of goods and services between organisations and/or individuals, and the study of consumer behaviour and requirements. It includes the study of the role of product development, pricing, distribution, promotion and sales in order to maximise business performance.

Classified under this field are programmes with the following main content:

Advertising.....  
 Market research.....  
 Marketing.....  
 Merchandising.....  
 Public relations.....  
 Sales and marketing.....

### 343 Finance, banking, insurance

**Finance, banking, insurance** is



the study of planning, directing, organising and controlling financial activities and services. It includes the control and monitoring of the financial resources of organisations, institutions and individuals, and the provision of financial services at the corporate and individual levels.

Classified under this field are programmes with the following main content:

Bank teller programmes .....  
Banking and finance .....  
Business finance .....  
Finance theory .....  
Finance, banking, insurance .....  
Financial management .....  
Insurance .....  
Investment analysis .....  
Investments and securities .....  
Pension insurance .....  
Social insurance .....  
Stock-broking .....

**Exclusion:**

Study of actuarial science is excluded from this field and included in field 462 Statistics.

**344 Accounting and taxation**

**Accounting and taxation** is the study of maintaining, auditing and

recording financial transactions. Classified under this field are programmes with the following main content:

Accounting .....  
Auditing .....  
Bookkeeping .....  
Tax accounting .....

**345 Management and administration**

**Management and administration** is the study of planning, directing and operating the functions and activities of organisations and institutions.

Programmes in management covering administration, economics, finance etc. are included in this field if emphasis is given to management and administration.

Classified under this field are programmes with the following main content:

Administration .....  
Business administration .....  
Educational management .....  
Employment management .....  
Enterprise training .....  
Human resources management .....  
Local public administration .....  
Logistic management .....  
Management of education .....

Management science .....  
Management skills .....  
Office management .....  
Organisational theory and behaviour .....  
Performance appraisal .....  
Personnel administration .....  
Personnel management .....  
Public administration .....  
Public and institution management ..  
Quality management .....  
Recruitment .....  
Start your own business-courses .....  
Training management .....

**Inclusion:**

Study of leadership in the context of management is included in this field.

**Exclusions:**

Training of leadership in the context of personal development is excluded from this field and included in field 090 Personal skills.

Study of administration in the meaning of office work is excluded from this field and included in field 346 Secretarial and office work.

**346 Secretarial and office work**

**Secretarial and office work** is the study of administrative procedures and practices, office technology and clerical, shorthand and keyboard skills. Specialised secretarial programmes (bilingual, medical, law, accounting etc) are included if the programme has secretarial work as its objective, rather than work as specialised assistants.

Classified under this field are programmes with the following main content:

Administrative and secretarial services .....  
Business correspondence .....  
Clerical programmes .....  
Court reporting .....  
Data entry .....  
Foreign language secretary programmes ..  
Information processing/data entry .....  
Keyboard skills .....  
Legal secretary programmes .....  
Management support services .....  
Medical secretary programmes .....  
Office automation .....  
Operation of office machines .....  
Receptionist training .....  
Secretarial programmes .....  
Shorthand .....  
Stenography .....  
Switchboard operating .....  
Typing .....

### Inclusion:

Broad secretarial programmes comprising among other thing computer courses are included in this field.

### Exclusions:

Separate programmes in using specific computer software are excluded from this field and included in *482 Computer use*.

Office management is excluded from this group and included in field *345 Management and administration*.

Hotel receptionist programmes are excluded from this field and included in field *811 Hotel, restaurant and catering*.

### 347 Working life

**Working life** is the study of the structure and function of working life. It comprises programmes, mainly given as staff training, related to the working place and to assignments.

Classified under this field are programmes with the following main content:

**Clients' needs**.....  
**Company knowledge**.....  
**Industrial relations**.....  
**Introductory courses at work**.....  
**Organisation at work**.....  
**Quality assurance**.....  
**Trade union courses (general)**.....  
**Work development**.....  
**Working life**.....

### Inclusion:

Staff training related to the working place or the assignments is included in this field if it is not possible to be classified into any other fields.

### Exclusions:

Training related to the working place or the assignments is excluded from this field if it has more to do with personal development than work development and is included in field *090 Personal skills*.

Staff training which can be classified in any other field is excluded from this field and included in the appropriate field. E.g. quality courses should, if technical, be included in the fields under *52 Engineering and engineering trades*.

Programmes in work environment should be included in field *862 Occupational health and safety*.

Programmes, mostly at tertiary level, dealing with working life in general in terms of the labour market, the social partners, industrial psychology etc. are excluded in this field and included in the fields under *31 Social and behavioural science*.

### 380 Law

**Law** is the study of the principles and procedures for formally maintaining social order, including training for legal professions such as advocate or training for the judicial bench.

Classified under this field are programmes with the following main content:

**Commercial law**.....  
**Criminal justice studies**.....  
**History of law**.....  
**Jurisprudence**.....  
**Labour law**.....  
**Law**.....  
**Legal practice**.....  
**Legal studies**.....  
**Notary/Notary's practice**.....  
**Para-legal studies**.....

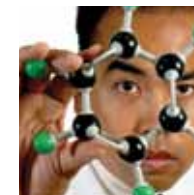
### 381 Syariah Law\*

**Syariah Law** is the study of comprehensive body of Islamic laws

that should regulate the public and private aspects of the lives of the Muslims. The code of law derived from the Quran and from the teachings and example of Prophet Muhammad'.

\*Wikipedia, *The Free Encyclopedia* and *AudioEnglish.net dictionary* 2009.

## 4 Science, Mathematics and Computing



### 421 Biology and biochemistry

**Biology and biochemistry** is the study of the structure, function, reproduction, growth, evolution and behaviour of all living organisms. It comprises the study of biological and related sciences, and includes the study of the chemistry of living organisms.

Classified under this field are programmes with the following main content:

**Biochemistry**.....  
**Biology**.....  
**Biometrics**.....  
**Biophysics**.....  
**Botany**.....  
**Entomology**.....  
**Genetics**.....  
**Life sciences**.....

**Limnology**.....  
**Microbiology**.....  
**Molecular biology**.....  
**Ornithology**.....  
**Parasitology**.....  
**Pharmacology**.....  
**Toxicology**.....  
**Virology**.....  
**Zoology**.....

#### **Inclusion:**

Study of chemical processes in living organisms (biochemistry, toxicology, pharmacology etc.) is included in this field.

#### **Exclusion:**

Study of environmental science, which is study of the relation between living organisms and the environment, is excluded from

this field and included in field 422 *Environmental science*.

### 422 Environmental science

**Environmental science** is the study of organisms in relation to one another and to the environment.

Classified under this field are programmes with the following main content:

**Ecology**.....  
**Environmental science**.....

#### **Exclusion:**

Study of biology and toxicology is excluded from this field and included in field 421 *Life science*.

#### 440 Physical science (broad programmes)

**Physical science (broad programmes)** is the study of physical science without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

**Physical programmes**.....

#### 441 Physics

**Physics** is the study of properties and interactions of matter and energy. It includes the study of astronomy and space science.

Classified under this field are programmes with the following main content:

**Acoustics**.....  
**Astronomy**.....  
**Astrophysics**.....  
**Nuclear physics**.....  
**Optics**.....  
**Physics**.....  
**Planetary sciences**.....  
**Space science**.....

#### Exclusion:

Opticians' practice is excluded from this field and included in field 725

*Medical diagnostic and treatment technology.*

#### 442 Chemistry

**Chemistry** is the study of substances and their elements and how they react when combined.

Classified under this field are programmes with the following main content:

**Analytical chemistry**.....  
**Chemistry**.....  
**Organic chemistry**.....  
**Petrology**.....  
**Polymer chemistry**.....

#### Exclusion:

Biochemistry is excluded from this field and included in field 421 *Life science*.

#### 443 Earth science

**Earth science** is the study of the composition and structure of earth including the hydrosphere and the atmosphere.

Classified under this field are programmes with the following main content:

**Atmospheric sciences**.....  
**Earth science**.....

**Geodesy**.....  
**Geography (nature)**.....  
**Geography (physical)**.....  
**Geology**.....  
**Geophysics**.....  
**Geoscience**.....  
**Hydrogeology**.....  
**Hydrology**.....  
**Marine science**.....  
**Meteorology**.....  
**Mineralogy**.....  
**Ocean life sciences**.....  
**Oceanography**.....  
**Palaeontology**.....  
**Seismology**.....  
**Vulcanology**.....

#### Exclusion:

Social geography is excluded from this field and included in field 312 *Sociology and cultural studies*.

#### 461 Mathematics

**Mathematics** is the study of abstract deductive systems. It includes algebra, arithmetic, geometry, real and complex analysis and applied mathematics.

Classified under this field are programmes with the following main content:

**Algebra**.....

Applied mathematics.....  
 Data analysis (mathematics).....  
 Geometry.....  
 Mathematics.....  
 Numerical analysis.....  
 Operations research.....

#### 462 Statistics

**Statistics** is the study of collecting, describing, arranging and analysing numerical data. Study of probability theory and actuarial science is included.

Classified under this field are programmes with the following main content:

Actuarial science.....  
 Mathematical (theoretical) statistics.....  
 Probability theory.....  
 Statistics, applied.....  
 Survey design.....  
 Survey sampling.....

#### Inclusions:

Study of applied statistics is included in this field.

Study of mathematical (theoretical) statistics is included in this field.

#### Exclusion:

Study of demography/population studies is excluded from this field

and included in field 312 *Sociology and cultural studies*.

#### 481 Computer science

**Computer science** is the study of the design and development of computer systems and computing environments. It includes the study of the design, maintenance and integration of software applications.

Classified under this field are programmes with the following main content:

Computer programming.....  
 Computer science.....  
 Computer system analysis.....  
 Computer system design.....  
 Informatics (computer science).....  
 Network administration.....  
 Operating systems.....  
 Programming (computer).....  
 Programming languages (visual basic, C++ etc.).....  
 Software localisation.....  
 Software testing.....

#### Exclusions:

Computer engineering (hardware) is excluded from this field and included in field 523 *Electronics and automation*.

Programmes in using computer applications are excluded from this field and included in field 482 *Computer use*.

#### 482 Computer use

**Computer use** is the study of using computers and computer software and applications for different purposes. These programmes are generally of short duration.

Classified under this field are programmes with the following main content:

Computer software use.....  
 Computer use.....  
 Internet use programmes.....  
 Software for calculating (spreadsheets).....  
 Software for data processing.....  
 Software for desktop publishing.....  
 Software for word processing.....

## 5 Engineering, Manufacturing and Construction



### 520 Engineering and engineering trades (broad programmes)

**Engineering and engineering trades (broad programmes)** is the study of engineering and engineering trades without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

Engineering .....  
 Engineering industry programmes .....  
 Maintenance engineering .....  
 Quality control (technical) .....

### 521 Mechanics and metal work

**Mechanics and metal work** is the study of planning, designing, developing, producing, maintaining

and monitoring machines, mechanical plants and systems and metal products. It includes designing and maintaining machines which produce goods and services. The focus of programmes in this field is machines, mechanical systems and metal products.

Classified under this field are programmes with the following main content:

Bicycle production .....  
 Bicycle repair .....  
 Boiler making and welding .....  
 Gunsmithing .....  
 Hydraulics .....  
 Locksmithing and safe repairing .....  
 Mechanical engineering .....  
 Mechanical trades programmes .....  
 Metal casting and patternmaking .....

Metal fitting, turning and machining.

Metal trades programmes .....  
 Metallurgical engineering .....  
 Metallurgical technology .....  
 Micromechanics .....  
 Precision mechanics .....  
 Sheet metal working .....  
 Steel production .....  
 Tool and die making .....  
 Watchmaking .....  
 Welding .....

### Exclusion:

Study of motor vehicle mechanics and engineering is excluded from this field and included in field 525 *Motor vehicles, ships and aircraft.*

### 522 Electricity and energy

**Electricity** is the study of installing, maintaining, repairing and



diagnosing faults in electrical wiring and related equipment in domestic, commercial and industrial establishments. Installation and maintenance of overhead and underground electrical power distribution networks is included.

**Energy** is the study of energy generation.

Classified under this field are programmes with the following main content:

Air-conditioning programmes .....  
 Climate engineering .....  
 Electrical appliances repairing .....  
 Electrical engineering .....  
 Electrical fitting .....  
 Electrical power generation .....  
 Electrical trades programmes .....  
 Energy programmes .....  
 Energy studies .....  
 Gas distribution .....  
 Heating trades programmes .....  
 Nuclear, hydraulic and thermal energy .....  
 Power production .....  
 Powerline installation and maintenance .....  
 Refrigeration programmes .....  
 Solar energy .....

**Inclusion:**

The study of installing, diagnosing faults in and repairing heating, air-conditioning and refrigeration equipment is included in this field.

**Exclusion:**

Study of vehicle electricity is excluded from this field and included in field 525 *Motor vehicles, ships and aircraft*.

**523 Electronics and automation**

**Electronics and automation** is the study of planning, designing, developing, maintaining and monitoring electronic equipment, machinery and systems. It includes designing computers and equipment for communication.

Classified under this field are programmes with the following main content:

Automation .....  
 Broadcasting electronics .....  
 Communication systems .....  
 Communications equipment installation .....  
 Communications equipment maintenance .....  
 Computer repairing .....  
 Computer engineering .....

Control engineering .....  
 Data processing technology .....  
 Digital technology .....  
 Electronic data processing .....  
 Electronic engineering .....  
 Electronic equipment servicing .....  
 Network technology .....  
 Robotics .....  
 Telecommunication technology .....  
 Television and radio repairing .....

**Exclusion:**

Computer science (design of computer systems and software applications) is excluded from this field and included in 481 *Computer science*.

**524 Chemical and process**

**Chemical and process** is the study of planning, designing, and developing products and processes where chemical and physical changes occur. It includes designing chemical plants and control systems.

Classified under this field are programmes with the following main content:

Biochemical technologies .....  
 Biotechnology engineering .....  
 Chemical engineering .....  
 Chemical process engineering .....

Laboratory assistant programmes .....  
 Laboratory technician programmes ..  
 Laboratory technology .....  
 Oil refining .....  
 Oil/gas/petrochemicals processing ..  
 Plant and machine operation  
 (processing) .....  
 Process technology.....

**Inclusion:**

Programmes in laboratory technology are included in this field if emphasis is not given to a specific application.

**Exclusions:**

Laboratory technology programmes are excluded from this field if emphasis is given to a specific application (biological, medical, etc.) and are included under appropriate field (*725 Medical diagnostic and treatment technology* etc).

Programmes with emphasis on production of a specific material are excluded from this field; e.g. programmes with emphasis on paper processing should be included in field *543 Materials (wood, paper, plastic, glass)*.

**525 Motor vehicles, ships and aircraft**

**Motor vehicles, ships and aircraft** is the study of designing, developing, producing, maintaining, diagnosing faults in, repairing and servicing motor vehicles, including earth moving equipment and agriculture machines. Typical is the combining of studies in both metal structures and motors.

Classified under this field are programmes with the following main content:

Aeronautical engineering .....  
 Aerospace engineering .....  
 Agriculture machinery mechanics ...  
 Air-craft engineering .....  
 Air-craft maintenance .....  
 Automotive electricity .....  
 Automotive engineering .....  
 Coachwork .....  
 Helicopter construction .....  
 Marine construction .....  
 Maritime engineering .....  
 Motorbike mechanics .....  
 Motorcycle engineering .....  
 Naval engineering .....  
 Panel beating .....  
 Shipbuilding .....  
 Varnish/spray .....  
 Vehicle and motor engineering .....

Vehicle building .....  
 Vehicle diagnostics .....  
 Vehicle electricity .....  
 Vehicle mechanics .....  
 Vehicle painting .....  
 Vehicle repairing .....  
 Vehicle trimming .....

**Inclusion:**

Study of vehicle electricity is included in this field.

**Exclusion:**

Study of producing and repairing non-motor vehicles is excluded from this field and included in *521 Mechanics and metal work* (e.g. bicycles) or *543 Materials (wood, paper, plastic, glass)* (e.g. boats and non-motor).

**526 Civil Engineering**

**Civil engineering** is the study of planning, designing, testing and directing the construction of large scale buildings and structures, including systems for transport, water supply, sewage etc.

Classified under this field are programmes with the following main content:  
 Bridge construction.....



Building construction.....  
 Building engineering.....  
 Civil engineering.....  
 Constructing plant operation.....  
 Construction technology.....  
 Constructional engineering.....  
 Dock and harbour engineering.....  
 Excavation engineering.....  
 Irrigation and drainage (construction).....  
 Quantity surveying.....  
 Road building.....  
 Scaffolding work.....  
 Structural engineering.....  
 Technical drawings (civil engineering).....  
 Water supply and sewerage engineering.....  
 Water technology and engineering.....

**Inclusion:**

Included in this field is the study of technical drawings related to civil engineering.

**Exclusions:**

Installation of electricity is excluded from this field and included in field 522 *Electricity and energy*.

Similarly, installing and repairing of heating, air-conditioning and refrigeration equipment is excluded from this field and included in field 522 *Electricity and energy*.

**527 Material Engineering\***

**Material Engineering** is the study on the development of new materials for industrial and user applications.

\*Wikipedia, *The Free Encyclopedia*, November 2009

**540 Manufacturing and processing (broad programmes)**

**Manufacturing and processing (broad programmes)** is the study of manufacturing and processing without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

**Manufacturing and processing**.....

**541 Food processing**

**Food processing** is the study of processing and packaging of food and beverages, and the equipment and procedures used in the production and distribution of foods.

Classified under this field are programmes with the following main content:

**Baking**.....

**Beer brewing**.....

**Brewing**.....

**Butchering**.....

Cheese production.....  
 Confectionery.....  
 Dairy foods (industrial).....  
 Dairy science.....  
 Distilling.....  
 Food and drink processing.....  
 Food handling/hygiene.....  
 Food preparation.....  
 Food preservation.....  
 Food processing industry.....  
 Food programmes.....  
 Food science.....  
 Food science and technology.....  
 Food technique.....  
 Industrial bakery/flour production.....  
 Meat processing.....  
 Pastry cooking.....  
 Tobacco processing.....  
 Wine production.....  
 Wine science.....  
 Wine storing/maturing.....

**Inclusions:**

Study of food handling and food hygiene is included in this field.

Study of tobacco processing is included in this field.

**Exclusions:**

Restaurant and catering programmes are excluded from this group and included in field 811 *Hotel, restaurant and catering*.

Nutritional science is excluded from this field and included in field 726 *Therapy and rehabilitation*.

## 542 Textiles, clothes, footwear and leather

**Textiles, clothes, footwear and leather** is the study of the manufacture of textiles, textile and leather products, clothing and related items, shoes and other forms of footwear.

Classified under this field are programmes with the following main content:

Clothing industry.....  
Clothing trades programmes.....  
Clothing, apparel and textile working.....  
Custom tailoring.....  
Cutting and tailoring.....  
Dressmaking.....  
Embroidery and needlework (industrial).....  
Footwear making.....  
Fur making.....  
Furrier.....  
Garment production.....  
Knitting (industrial).....  
Leather goods making.....  
Leather goods production.....  
Leather processing.....

Leather trades programmes.....  
Pelt work.....  
Saddlery.....  
Sewing (industrial).....  
Shoe production.....  
Shoe, boot and leather repairing.....  
Shoemaking.....  
Skins and leather production.....  
Soft furnishings.....  
Spinning.....  
Tailoring.....  
Textile technique.....  
Textile trades programmes.....  
Textiles, clothing and footwear.....  
Upholstery.....  
Weaving (industrial).....  
Wool science.....

### Exclusion:

Handicraft programmes (weaving, embroidery etc.) are excluded from this field and included in field 215 *Craft skills*.

## 543 Materials (wood, paper, plastic, glass)

**Materials** is the study of the manufacturing of products in wood, paper, plastic, glass or other materials like stone, clay, artificial materials etc. Programmes included in this field have more to do with a specific material than general technical knowledge.

Classified under this field are programmes with the following main content:

Boat building (non-motor).....  
Cabinet making.....  
Cane willow and bamboo work.....  
Carpentry (non-building).....  
Ceramics (industrial).....  
Furniture crafts.....  
Furniture making.....  
Glass production.....  
Glass working (industrial).....  
Industrial diamond production.....  
Paper manufacturing and processing.....  
Plastic manufacturing.....  
Rubber processing.....  
Stone cutting.....  
Synthetic fibre manufacturing.....  
Timber technology.....  
Wood machining and turning.....  
Wood technology.....  
Woodwork trades programmes.....  
Woodworking and carpentry.....

### Exclusions:

Study of metal work is excluded from this field and included in field 521 *Mechanics and metal work*.

Study of building carpentry and joinery is excluded from this field and included in field 582 *Building and civil engineering*.

Study of chemical processing in general is excluded from this field and included in field 524 *Chemical and process*.

Study of printing and bookbinding is excluded from this field and included in field 213 *Audio-visual techniques and media production*.

Handicraft programmes (glass arts and crafts, woodcarving etc) are excluded from this field and included in field 215 *Craft skills*.

## 544 Mining and extraction

**Mining and extraction** is the study of planning, developing, assessing and directing the extraction of minerals, oil and gas from the earth.

Classified under this field are programmes with the following main content:

Coal mining.....  
Mineral technology.....  
Mining engineering.....  
Mining technology.....  
Oil and gas extraction.....  
Quarry supervision.....  
Raw material extraction.....

**Exclusions:**

Study of metallurgical engineering is excluded from this field and included in *521 Mechanics and metal work*.

Study of geology is excluded from this field and included in field *443 Earth science*.

**545 Applied science\***

**Applied science** is the application of knowledge from one or more natural scientific fields to solve practical problems. Fields of engineering are closely related to applied sciences. Applied science is important for technology development. Its use in industrial settings is usually referred to as research and development (R&D). \*Wikipedia, *The Free Encyclopedia*, November 2009

Classified under this field are programmes with the following main content:

Applied chemistry.....  
Applied physics.....  
Bio-composite technology.....  
Biomolecular science.....  
Biotechnology.....  
Chemistry (forensic analysis).....  
Environmental technology.....

Furniture technology.....  
Industrial chemistry.....  
Industrial physics.....  
Marine technology.....  
Materials technology.....  
Plantation technology and management.....  
Polymer technology.....  
Textile technology.....

**581 Architecture and town planning**

**Architecture** is the study of the art, science and techniques of building design. It encompasses both utilitarian ends - such as the soundness of the structure and the functional and economic efficiency of the building - and aesthetic considerations.

**Town planning** is the study of the regulated growth and improvement of towns in both functional and aesthetical points of view.

Classified under this field are programmes with the following main content:  
**Architectural urban design and planning**.....  
**Architecture**.....  
**Building design**.....  
**Cartography/land surveying**.....

City planning.....  
Community development.....  
Community planning.....  
Landscape architecture.....  
Rural development.....  
Structural architecture.....  
Surveying.....  
Topography.....  
Town and country planning.....  
Town and regional planning.....  
Town planning.....  
Urban planning.....  
Urban studies.....

**Inclusion:**

Study of cartography and surveying is included in this field.

**Exclusions:**

Study of interior design is excluded from this field and included in field *214 Design*.

The laying out and construction of parks and gardens is excluded from this field and included in field *622 Horticulture*.

**582 Building**

**Building** is the study of the science, technology and techniques of assembling, erecting and maintaining public, commercial, industrial and residential structures and their fittings.

Classified under this field are programmes with the following main content:

Bricklaying.....  
Brickwork and masonry.....  
Building maintenance.....  
Building renovation.....  
Building technology.....  
Carpentry and joinery (building).....  
Cement working.....  
Constructional metalwork (building).....  
Demolition.....  
Floor and wall tiling.....  
Floor covering.....  
Glazing.....  
Insulation.....  
Joining and carpentry.....  
Mason and tile setting.....  
Masonry.....  
Painting and wall covering.....  
Pipe fitting.....  
Plastering (building).....  
Plumbing.....  
Roof fixing.....  
Sanitation (building).....  
Stonemasonry.....  
Technical drawings (building).....  
Ventilation (building).....

## 6 Agriculture and Veterinary



### 620 Agriculture, forestry and fishery (broad programmes)

**Agriculture, forestry and fishery (broad programmes)** is the study of agriculture, forestry and fishery without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

**Agriculture, forestry and fishery**.....

### 621 Crop and livestock production

**Crop and livestock production** (agriculture) is the study of growing, maintaining and harvesting crops & pastures, and grazing & managing animals. It includes the study of managing and maintaining farms and

producing unprocessed plant and animal products.

Classified under this field are programmes with the following main content:

**Agricultural business/agribusiness operations**.....  
**Agricultural economics**.....  
**Agricultural sciences**.....  
**Agriculture**.....  
**Agronomy and crop science**.....  
**Animal breeding**.....  
**Animal husbandry**.....  
**Animal training**.....  
**Basic skills in agriculture**.....  
**Crop husbandry**.....  
**Dog breeding**.....  
**Farm and ranch management**.....  
**Farm maintenance**.....  
**Farming**.....

**Fruit growing**.....  
**Fruit production**.....  
**Goose keeping**.....  
**Grain growing**.....  
**Horse breeding**.....  
**Horse husbandry**.....  
**Irrigation techniques**.....  
**Orchards construction**.....  
**Pig farming**.....  
**Poultry husbandry**.....  
**Race horse care**.....  
**Rye and wheat growing**.....  
**Sheep farming**.....  
**Soil and water technician programmes**.....  
**Soil fertility**.....  
**Soil science**.....  
**Vegetable plantation**.....  
**Vineyard construction**.....  
**Viticulture**.....  
**Wine growing**.....

### Inclusion:

Study of soil science, soil fertility and irrigation techniques is included in this field. Study of growing intensively managed crops such as fruit and vegetables is included in this field.

### Exclusions:

Study of wine production is excluded from this field and is included in field *541 Food processing*.

Jockeying is excluded from this field and is included in field *813 Sports*

### 622 Horticulture

**Horticulture** (gardening) is the study of horticultural technology and management, floriculture, greenhouse methods, nursery management, landscape gardening etc.

Classified under this field are programmes with the following main content:

Floriculture.....  
Gardening.....  
Greenhouse operations.....  
Greenkeeping.....  
Horticultural technique.....  
Horticulture.....  
Landscape gardening.....  
Maintaining sports turf.....  
Nursery management (horticulture).....  
Production of ornamental plants.....  
Sports grounds maintenance.....  
Turf cultivation.....  
Turf management.....

#### Inclusion:s:

The laying out and construction of urban and domestic parks and gardens is included in this field.

Gardening programmes combining floriculture and growing vegetables are included in this field.

#### Exclusions:

Study of growing crops (plants such as paddy, fruit, vegetables etc, is excluded from this field and included in field 621 *Crop and livestock production*.

Study of soil science, soil fertility and irrigation techniques is excluded from

this field and included in field 621 *Crop and livestock production*.

Study of National park management is excluded from this field and included in field 853 *Natural environments and wildlife*.

Study of Landscape architecture is excluded from this field and included in field 581 *Architecture and town planning*.

### 623 Forestry

**Forestry** is the study of establishing, cultivating, harvesting and managing forests. It includes study of hunting and trapping.

Classified under this field are programmes with the following main content:

Forest keeping.....  
Forest product techniques.....  
Forest ranging.....  
Forestry.....  
Hunting and trapping.....

#### Exclusions:

Study of National park management is excluded from this field and included in field 852 *Natural environments and wildlife*.

Timber technology (sawmill production etc) is excluded from this field and included in field 543 *Materials (wood, paper, plastic, glass)*.

### 624 Fisheries

**Fisheries** is the study of breeding, rearing and harvesting fish and other seafood.

Classified under this field are programmes with the following main content:

Deep sea fishing.....  
Fish breeding.....  
Fish farms.....  
Fish husbandry.....  
Fishery.....  
Fishery science and technology.....  
Mariculture.....  
Shellfish breeding.....

#### Inclusion:

Programmes for operating fishing boats are included in this field.

#### Exclusion:

Study of industrial processing of fish is excluded from this group and included in field 541 *Food processing*.

### 640 Veterinary

**Veterinary** is the study of preventing, diagnosing and treating diseases and injuries in animals, and their general care. The study of caring for sick, injured and infirm animals undergoing treatment in veterinary clinics is included.

Classified under this field are programmes with the following main content:

Animal health care.....  
Animal reproduction (science).....  
Veterinary assisting.....  
Veterinary medicine.....  
Veterinary science.....

#### Inclusion:

The science of animal reproduction is included in this field.

#### Exclusion:

Study of animal breeding is excluded from this field and included in field 621 *Crop and livestock production*.



## 7 Health and Welfare



### 720 Health (broad programmes)

**Health (broad programmes)** is the study of health without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

**Health**.....  
**Public health programmes**.....

### 721 Medicine

**Medicine** is the study of the principles and procedures used in preventing, diagnosing, caring for and treating illness, disease and injury in humans and the maintenance of general health. Principally, this field consists of training of physicians/doctors.

Classified under this field are programmes with the following main content:

**Anaesthesiology**.....  
**Anatomy**.....  
**Audiology/hearing sciences**.....  
**Bacteriology**.....  
**Cardiology**.....  
**Cytology**.....  
**Dermatology**.....  
**Epidemiology**.....  
**Forensic medicine**.....  
**General medicine**.....  
**Gerontology**.....  
**Gynaecology**.....  
**Haematology**.....  
**Histology**.....  
**Homeopathic medicine**.....  
**Immunology**.....  
**Internal medicine**.....  
**Medical science**.....

**Medical training**.....  
**Medicine**.....  
**Naturopathic medicine**.....  
**Neurology**.....  
**Obstetrics and gynaecology**.....  
**Oncology**.....  
**Ophthalmic**.....  
**Ophthalmology**.....  
**Paediatrics**.....  
**Pathology**.....  
**Physiology**.....  
**Plastic surgery**.....  
**Preventive and social medicine**.....  
**Psychiatry**.....  
**Stomatology**.....  
**Surgery**.....  
**Training of doctors**.....  
**Training of physicians**.....

## 722 Medical Services

**Medical Services** comprises the study of 725 *Medical diagnostic and treatment technology*, 726 *Therapy and rehabilitation* and 727 *Pharmacy* fields of education and training, and none of these fields is clearly dominating.

## 723 Nursing and caring

**Nursing and caring** is the study of providing health care for the sick, disabled or infirm and assisting physicians and other medical and health professionals diagnose and treat patients. The focus of qualifications in nursing is maintaining and caring for the health during illness and rehabilitation. It includes care of old people and care of the disabled.

Classified under this field are programmes with the following main content:

Assistant nursing .....  
Basic nursing .....  
Care of old people .....  
Care of the disabled .....  
Community nursing .....  
Elder care .....  
Gerontological services .....  
Health care programmes .....

Hygiene, medical .....  
Infant hygiene (nursing) .....  
Midwifery .....  
Mothercraft nursing .....  
Nursing .....  
Nursing aide/orderly .....  
Psychiatric nursing .....

### Inclusion:

Caring programmes comprising both health care and social care e.g. for old people, are included in this field.

### Exclusions:

Veterinary nursing is excluded from this field and is included in field 640 *Veterinary*.

Dental nursing is excluded from this field and is included in field 724 *Dental studies*.

Care of children (if not health care) is excluded from this field and included in field 761 *Child care and youth services*.

## 724 Dental studies

**Dental studies** is the study of diagnosing, treating and preventing diseases and abnormalities of the teeth and gums. It includes the study of designing, making and repairing

dental prostheses and orthodontic appliances. It also includes the study of providing assistance to dentists.

Classified under this field are programmes with the following main content:

Clinical dentistry .....  
Dental assisting .....  
Dental hygiene .....  
Dental laboratory technology .....  
Dental nursing .....  
Dental science .....  
Dental surgery .....  
Dental technology .....  
Dentistry .....  
Odontology .....  
Orthodontics .....

### Inclusion:

Study of dental hygiene and public dental health is included in this field.

## 725 Medical diagnostic and treatment technology

**Medical diagnostic and treatment technology** is the study of a wide range of technologies used for diagnosing and treating diseases and handicaps.

Classified under this field are programmes with the following main

content:

Ambulance service .....  
Ambulance technology .....  
Auditory prosthetics .....  
Emergency para-medical technology .....  
Forensic medicine technology .....  
Hearing aid technology .....  
Medical laboratory technology .....  
Medical technology .....  
Nuclear medicine technology .....  
Optical lens making .....  
Optical prosthetics/lenses .....  
Optical technology .....  
Orthopaedic prosthetics .....  
Prosthetic technology .....  
Radiography .....  
Radiology technology .....  
Radiotherapy .....  
X-ray technology (medical) .....

### Inclusion:

Medical laboratory technology is included in this field.

### Exclusions:

Study of laboratory technology is excluded from this field if emphasis is not given to medical laboratory technology.

General laboratory technology is included in field 524 *Chemical and process*. Laboratory technology where emphasis is given to other specific

applications (biology, physics, chemistry etc) is included in the appropriate field (421 *Biology and biochemistry*, 441 *Physics*, 442 *Chemistry* etc).

Study of dental technology is excluded from this field and included in field 724 *Dental studies*.

## 726 Therapy and rehabilitation

**Therapy and rehabilitation** is the study of restoring normal physical conditions to those incapacitated by temporary or permanent disability.

Classified under this field are programmes with the following main content:

Chiropractic .....  
Dietetics .....  
Dietician programmes .....  
Massage (medical) .....  
Mental health services .....  
Nutrition and dietetics .....  
Nutrition .....  
Occupational therapy .....  
Optometry .....  
Osteopathy .....  
Physiotherapy .....  
Reflexology .....  
Rehabilitation .....  
Speech pathology and therapy .....

## Vocational rehabilitation .....

### Inclusion:

Study of vocational rehabilitation and occupational therapy is included in this field.

### Exclusions:

Study of psychotherapy is excluded from this field and included in field 311 *Psychology*.

Study of nutrition science is excluded from this field and included in field 421 *Biology and biochemistry*.

## 727 Pharmacy

**Pharmacy** is the study of drugs and their effects on humans. It includes their preparation, dispensing and administration.

Classified under this field are programmes with the following main content:

Dispensing pharmacy .....  
Pharmacy .....

### Exclusion:

Study of pharmacology is excluded from this field and included in field 421 *Biology and biochemistry*.

## 761 Child care and youth services

**Child care and youth services** is the study of the development and care of children and youths. It includes study of recreation and leisure activities as a social service for school children.

Classified under this field are programmes with the following main content:

Child care .....  
Children recreation programmes .....  
Youth recreation programmes .....  
Youth services .....  
Youth worker programmes .....

### Exclusions:

Study of early childhood education is excluded from this field and included in field 143 *Pre-primary teaching*.

Study of health care of children is excluded from this field and included in field 723 *Nursing and caring*.

## 762 Social work and counselling

**Social work and counselling** is the study of the welfare needs of communities, specific groups and individuals and the appropriate ways of meeting these needs. The focus is on social welfare with emphasis on

social policy and practice.

Classified under this field are programmes with the following main content:

Alcohol and drug abuse counselling .....  
Alcohol, tobacco, drugs (knowledge about) .....  
Career advising .....  
Counselling .....  
Crisis support .....  
Family and marriage counselling .....  
Maltreatment (knowledge about) .....  
Mobbing (knowledge about) .....  
Social care .....  
Social policy .....  
Social practice .....  
Social theory (applied) .....  
Social work (welfare) .....  
Vocational counselling .....  
Vocational guidance .....

### Inclusion:

Study of vocational guidance is included in this field.

### Exclusions:

Study of sociology and social science is excluded from this field and included in field 312 *Sociology and cultural studies*.

Caring programmes combining health care and social care, e.g. for old people, are excluded from this field and included in field 723 *Nursing and caring*.



## 8 Services



### 810 Personal services (broad programmes)

#### Personal services (broad programmes)

is the broad study of personal service without specialising in any of the detailed fields. The field consists ,to a large extent, programmes at secondary level.

Classified under this field are programmes with the following main content:

#### Personal services

### 811 Hotel, restaurant and catering

**Hotel, restaurant and catering** is the study of providing food, beverages, accommodation and related services at hotels, restaurants etc.

Classified under this field are programmes with the following main content:

- Bar service.....
- Bartending/mixology.....
- Catering.....
- Cooking (restaurant and hotel-type).....
- Culinary arts.....
- Food and hospitality services.....
- Food serving.....
- Hospitality services.....
- Hotel and restaurant programmes.....
- Hotel receptionist training.....
- Hotel services.....
- Hotel/motel and restaurant services.....
- Waiting and bar service.....

#### Exclusions:

Study of food processing (industrial) is excluded from this field and included in field 541 *Food processing*.

Receptionist training (general) is excluded from this field and included in field 346 *Secretarial and office work*.

### 812 Travel, tourism and leisure

**Travel, tourism** is the study of marketing and advertising tourist destinations and events. It includes the study of ticketing and reservation practices.

**Leisure** is the study of recreational and leisure activities for individuals and groups.

Classified under this field are programmes with the following main content:

- Ground crew training (airport).....
- Guiding, tour leading.....
- Leisure and tourism.....

Recreation and leisure .....
Recreation management .....
Tourism .....
Tourist trades programmes .....
Travel agency services .....
Travel and tourism .....
Travel services .....

**Exclusion:**

Study of recreation and leisure activities for school children is excluded from this field and included in field *761 Child care and youth services*.

**813 Sports**

**Sports** is the study of techniques and skills in a chosen sport.

Classified under this field are programmes with the following main content:

Bookmaking (horses etc) .....
Diving (sport) .....
Football playing .....
Gymnastics .....
Jockeying .....
Physical training (sports) .....
Sport leadership .....
Sport trainer training .....
Sports .....
Sports coaching .....
Sports instructor training .....

Umpire and other sports official training .....
---

**Inclusion:**

Jockeying is included in this field.

**Exclusion:**

Training of school teachers in physical education (sports teachers) is excluded from this field and included in field *146 Training for teachers of vocational subjects*.

**814 Domestic services**

**Domestic services** is the study of various domestic services, such as housekeeping, cleaning, laundering, sewing etc.

Classified under this field are programmes with the following main content:

Caretaking, housekeeping, homeservice .....
Chimney sweeping .....
Cleaning .....
Consumer economics .....
Cooking (home) .....
Domestic science .....
Dry-cleaning .....
Funeral services and mortuary science .....
Home economics .....

Laundry .....
Needlework (home) .....
Sewing (home) .....

**Inclusion:**

Cleaning programmes are included in this field even if directed towards cleaning schools, hospitals, factories etc.

**Exclusion:**

Study of building maintenance is excluded from this field and included in field *582 Building and civil engineering*.

**815 Hair and beauty services**

**Hair and beauty services** is the study of caring for the hair and the body for beautification.

Classified under this field are programmes with the following main content:

Barbering .....
Beauty therapy .....
Cosmetic services .....
Cosmetology .....
Fitness and weight control .....
Fitness services .....
Hairdressing .....
Make-up .....
Manicure .....

Massage (beauty) .....
Pedicure .....
Salon services (beauty therapy) .....
Wig making .....

**840 Transport services**

**Transport services** is the study of operating, navigating and directing ships, aircraft and other forms of transportation.

Classified under this field are programmes with the following main content:

Air crew programmes (flying and navigation) .....
Air traffic control .....
Aircraft operation .....
Aviation .....
Bus and coach driving .....
Cabin crew training .....
Communication (air, railway, road etc.) programmes .....
Crane driving .....
Driving programmes .....
Flying and navigation .....
Fork-lift driving .....
Mail operations .....
Nautical science .....
Navigation technologies .....
Postal service .....
Railway operations .....
Road motor vehicle operations .....

Seamanship.....	Environmental studies.....
Seamen programmes.....	Natural resource use programmes.....
Ship operation.....	Natural resources conservation.....
Stewardess/steward training (air).....	Soil and water conservation.....
Transport programmes.....	
Truck driving.....	

**Inclusion:**

Cabin crew training is included in this field.

**Exclusions:**

Programmes in telephone network services are excluded from this field and included in field *523 Electronics and automation*.

Programmes in switchboard operating are excluded from this field and included in field *346 Secretarial and office work*.

**850 Environmental protection (broad programmes)**

**Environmental protection (broad programmes)** is the study of environmental protection without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

Environmental conservation.....
Environmental protection.....

Environmental studies.....
Natural resource use programmes.....
Natural resources conservation.....
Soil and water conservation.....

**851 Environmental protection technology**

**Environmental protection technology** is the study of processes in order to minimise discharge and waste and avoid pollution. It includes programmes dealing with control of water, air, soil etc.

Classified under this field are programmes with the following main content:

Air pollution control.....
Ecological technology.....
Environmental control.....
Environmental protection technology.....
Industrial discharge control.....
Noise pollution control.....
Recycling.....
Water pollution control.....

**Exclusion:**

Programmes dealing with hygienic standards in food, water etc. are excluded from this field and included in field *853 Community sanitation services*.

**852 Natural environments and wildlife**

**Natural environments and wildlife** is the study of the relationships between living organisms in natural environments in order to protect nature and wildlife. It includes study of establishing and maintaining national parks in order to preserve their original natural state.

Classified under this field are programmes with the following main content:

Conservation and land management.....
National parks and wildlife management.....
Nature conservation.....
Wildlife management.....
Wildlife ranger studies.....

**Exclusions:**

Study of forestry and horticulture is excluded from this field and included in some of the fields under the narrow field of *62 Agriculture, forestry and fishery*.

Study of hunting and trapping is excluded from this field and included in field *623 Forestry*.

**853 Community sanitation services**

**Community sanitation services** is the study of community services dealing with items that affect public health such as hygienic standards in food, water supply, disposal of sewage and garbage and street cleaning.

Classified under this field are programmes with the following main content:

Garbage disposal.....
Hygiene, community.....
Hygienic standards.....
Refuse collection.....
Refuse/sewage disposal.....
Sanitation, community.....
Street cleaning.....
Water supply (service).....

**Inclusion:**

Programmes in services to the community dealing with items that affect public health, such as hygiene standards in food and water supply, disposal of garbage, street cleaning etc. is included in this field.

**860 Security services (broad programmes)**

**Security services (broad programmes)** is the study of security services without specialising in any of the detailed fields.

Classified under this field are programmes with the following main content:

**Security services** .....

### 861 Protection of persons and property

**Protection of persons and property** is the study of services to the community concerning protection of property and persons. It comprises training in police work, public security, fire protection and fire fighting.

Classified under this field are programmes with the following main content:

**Civil security** .....

**Customs programmes** .....

**Diving (professional)** .....

**Fire technology** .....

**Fire-protection (fire fighting)** .....

**Law enforcement** .....

**Life guarding** .....

**Police work** .....

**Policing studies** .....

**Prison work** .....

**Public security** .....

**Security and loss prevention**

**services** .....

**Security guarding** .....

#### Exclusions:

Study of law is excluded from this field and included in field *380 Law*.

Study of criminology is excluded from this field and included in field *312 Sociology and cultural studies*.

### 862 Occupational health and safety

**Occupational health and safety** is the study of recognising, evaluating and controlling environmental factors associated with the workplace.

Classified under this field are programmes with the following main content:

**Ergonomics (occupational health and safety)** .....

**Health and safety in the work place** ..

**Industrial welfare** .....

**Job safety** .....

**Labour protection** .....

**Labour security** .....

**Labour welfare (safety)** .....

**Occupational health and industrial**

**hygiene** .....

**Occupational health and safety** .....

**Stress at work** .....

**Work environment** .....

#### Exclusions:

Study of vocational rehabilitation and occupational therapy is excluded from this field and included in field *726 Therapy and rehabilitation*.

Study of labour law is excluded from this field and included in *380 Law*.

Study of ergonomics is excluded from this field if emphasis is given to technical aspects and is included in the appropriate field under *52 Engineering and engineering trades*.

### 863 Military and defence

**Military and defence** is the study of services to the community connected with war and defence, designed to provide training in the principles and practice of military science.

Classified under this field are programmes with the following main content:

**Army training** .....

**Defence studies** .....

**Military science** .....

**National security** .....

**War theory** .....

#### Exclusion:

Military personnel participating in non-military programmes should be classified according to the subject content of the training programme.

Andersson, R. & Olsson, A. (1999). *Field of Education and Training Manual*. Sweden:EUROSTAT.

*AudioEnglish.net, dictionary*. (2005). Princeton University. Retrieved December 2, 2009 from, <http://www.audioenglish.net/dictionary/>.

EUROSTAT and CEDEFOP. (1999): *Fields of Training Manual*. Luxembourg: EUROSTAT and CEDEFOP.

UNESCO: ISCED. (1997). *International Standard Classification of Education*. Paris: UNESCO.

UNESCO: Operational Manual for ISCED 1997. (1999). *International Standard Classification of Education (1st Ed.)*. Paris: UNESCO.

*Wikipedia: The Free Encyclopedia*. (2009). Wikipedia Foundation, Inc. Retrieved November 3, 2009, from <http://www.wikipedia.org>.

# Appendix A Numerical Listing of Fields of Education and Training

FIELD DESCRIPTIONS	PAGE
<b>0 GENERAL PROGRAMMES</b>	17
010 Basic/broad, general programmes	17
080 Literacy and numeracy	17
090 Personal skills	17
<b>1 EDUCATION</b>	18
<b>140 Teacher training and education science (broad programmes)</b>	18
141 Teaching and training = 143+144+145+146	18
142 Education science	18
143 Training for pre-school teachers	18
144 Training for teachers at basic levels	19
145 Training for teachers with subject specialisation	19
146 Training for teachers of vocational subjects	19
<b>2 ARTS AND HUMANITIES</b>	20
<b>210 Arts (broad programmes)</b>	20
211 Fine arts	20
212 Music and performing arts	20
213 Audio-visual techniques and media production	21
214 Design	21
215 Craft skills	22
<b>220 Humanities (broad programmes)</b>	22
221 Religion	22
222 Languages = 223+ 224	22
223 National language	23
224 Other languages	23
225 History and archeology	23
226 Philosophy and ethics	23
227 History, philosophy and related subjects = 225+226	23

FIELD DESCRIPTIONS	PAGE
<b>3 SOCIAL SCIENCES, BUSINESS AND LAW</b>	24
<b>310 Social and behavioural science (broad programmes)</b>	24
311 Psychology	24
312 Sociology and cultural studies	24
313 Political science and civics	25
314 Economies	25
321 Journalism and reporting	25
322 Library, information, archive	25
<b>340 Business and administration (broad programmes)</b>	26
341 Wholesale and retail sales	26
342 Marketing and advertising	26
343 Finance, banking, insurance	26
344 Accounting and taxation	27
345 Management and administration	27
346 Secretarial and office work	27
347 Working life	28
380 Law	28
381 Syariah law	28
<b>4 SCIENCE, MATHEMATICS AND COMPUTING</b>	29
421 Biology and biochemistry	29
422 Environmental science	29
<b>440 Physical science (broad programmes)</b>	30
441 Physic	30
442 Chemistry	30
443 Earth science	30
461 Mathematics	30
462 Statistics	31
481 Computer science	31

FIELD DESCRIPTIONS	PAGE
482 Computer use	31
<b>5 ENGINEERING, MANUFACTURING AND CONSTRUCTION</b>	32
<b>520 Engineering and engineering trades (broad programmes)</b>	32
521 Mechanics and metal work	32
522 Electricity and energy	33
523 Electronics and automation	33
524 Chemical and process	33
525 Motor vehicles, ships and aircraft	34
526 Civil engineering	34
527 Material engineering	35
<b>54 MANUFACTURING AND PROCESSING</b>	35
<b>540 Manufacturing and processing (broad programmes)</b>	35
541 Food processing	35
542 Textiles, clothes, footwear, leather	36
543 Materials (wood, paper, plastic, glass)	36
544 Mining and extraction	36
545 Applied science	37
581 Architecture and town planning	37
582 Building	37
<b>6 AGRICULTURE AND VETERINARY</b>	38
<b>620 Agriculture, forestry and fishery (broad programmes)</b>	38
621 Crop and livestock production	38
622 Horticulture	38
623 Forestry	39
624 Fisheries	39
640 Veterinary	39

FIELD DESCRIPTIONS	PAGE
<b>7 HEALTH AND WELFARE</b>	40
<b>720 Health (broad programmes)</b>	40
721 Medicine	40
722 Medical services = 725+726+727	41
723 Nursing and caring	41
724 Dental studies	41
725 Medical diagnostic and treatment technology	41
726 Therapy rehabilitation	42
727 Pharmacy	42
761 Child care and youth services	42
762 Social work and counselling	42
<b>8 SERVICES</b>	43
<b>810 Personal services (broad programmes)</b>	43
811 Hotel, restaurant and catering	43
812 Travel, tourism and leisure	43
813 Sports	44
814 Domestic services	44
815 Hair and beauty services	44
840 Transport services	44
<b>850 Environmental protection (broad programmes)</b>	45
851 Environmental protection technology	45
852 Natural environmental and wildlife	45
853 Community sanitation services	45
<b>860 Security services (broad programmes)</b>	45
861 Protection of persons and property	46
862 Occupational health and safety	46
863 Military and defence	46



# Appendix B Numerical Listing of Fields of Education and Training by Programme Contents

<b>0 GENERAL PROGRAMMES</b>		
<b>01 BASIC / BROAD GENERAL PROGRAMMES</b>		
<b>010 Basic/broad general programmes</b>	17	
Basic programmes	17	
Broad general programmes	17	
General programmes with no special subject emphasis	17	
<b>08 LITERACY AND NUMERACY</b>		
<b>080 Literacy and Numeracy</b>	17	
Basic remedial programmes for adults	17	
Functional literacy	17	
Literacy	17	
Numeracy	17	
Simple literacy	17	
<b>09 PERSONAL SKILLS</b>		
<b>090 Personal skills</b>	17	
Argumentation technique	17	
Assertiveness	17	
Communication skills	17	
Co-operation	17	
Development of behavioural capacities	17	
Development of mental skills	17	
Development of personal organisational capacities	17	
Enhancing personal skills	17	
Family life development training	17	
Job-seeking programmes	17	
Life orientation programmes	17	
Personal career planning	17	
Personal development	17	
Positive thinking	17	
Presentation technique	17	
Public speaking	17	
Self esteem skills	17	
Self-confidence	17	
Social competence	17	
Teamwork	17	
Time management	17	
<b>1 EDUCATION</b>		
<b>14 TEACHER TRAINING AND EDUCATION SCIENCES</b>		
<b>140 Teacher training and education science (broad programmes)</b>	18	
Education technology	18	
Practical pedagogical courses	18	
Teacher education	18	
Teacher training	18	
<b>141 Teaching and training = 143+144+145+146</b>	18	
<b>142 Education science</b>	18	
Curriculum development (theory)	18	
Didactics	18	
Distance education methodology	18	
Education science	18	
Educational assessment, testing and measurement	18	
Educational evaluation and research	18	
Pedagogical sciences (education)	18	
<b>143 Training for pre-school teachers</b>	18	
Early childhood teaching	18	
Pre-primary teacher training	18	
<b>144 Training for teachers at basic levels</b>	19	
Class teacher training	19	
Elementary teacher education	19	
Home language teacher training	19	
Primary teaching	19	
Special education teaching	19	
<b>145 Training for teachers with subject specialisation</b>	19	
Secondary teaching	19	
Special subject teaching	19	
Teacher training, theoretical subjects	19	
<b>146 Training for teachers of vocational subjects</b>	19	
Driver and safety teacher education	19	
Driving instructor training	19	
Flight instructor training	19	
Nursing teacher training	19	
Physical education teacher training	19	

Post-school teacher training	19	Fine art print making	20	Binding and finishing (printing)	21
Teacher training in arts and crafts	19	History of art	20	Bookbinding	21
Teacher training in commercial subjects	19	Lithography	20	Camera operating	21
Teacher training in music	19	Painting (art)	20	Cinematography	21
Teacher training in nursing	19	Philosophy of art	20	Compositing (printing)	21
Teacher training in technical subjects	19	Sculpture	20	Composition equipment operating	21
Teacher training, physical training	19	Sketching (art)	20	Computer graphics	21
Teacher training, vocational subjects	19	<b>212 Music and performing arts</b>	20	Computer type-setting	21
Technical teaching	19	Acting and directing	21	Desktop publishing	21
Training of instructors in companies etc.	19	Choreography	21	Disc jockey training	21
Training of trainers	19	Circus	21	Film and TV editing	21
Vocational teacher training	19	Composition (music)	21	Film production	21
		Conducting (music)	21	Graphic design	21
		Dance	21	Graphic reproduction	21
		Directing (theatre)	21	Illustration	21
		Drama	21	Lay-out	21
		Elocution	21	Media techniques	21
		Fashion modelling	21	Multimedia production	21
		History of film and theatre	21	Photo developing	21
		History of music	21	Photography	21
		Music	21	Printing	21
		Music and the stage	21	Printing machining	21
		Performing arts	21	Publishing design	21
		Theatre	21	Radio and TV production	21
		<b>213 Audio-visual techniques and media production</b>	21	Recorded music production	21
		Animation	21	Screen printing	21

## 2 ARTS AND HUMANITIES

### 21 ARTS

#### 210 Arts (broad programmes) 20

Arts 20

Arts and craft 20

#### 211 Fine arts 20

Aesthetics 20

Art history 20

Art studies 20

Art theory 20

Calligraphy 20

Drawing (artistic) 20

Etching (artistic) 20

# Appendix B Numerical Listing of Fields of Education and Training by Programme Contents

Silk screen printing	21	Goldsmithing	22	Interpretation (Malay language)	23
Sound and vision	21	Handicrafts	22	Linguistics (Malay language)	23
Sound technique	21	Jewellery design	22	Literature (Malay language)	23
Type-setting	21	Jewellery making (craft)	22	Sign language (Malay language)	23
<b>214 Design</b>	21	Lapidary and jewellery	22	Translation (Malay language)	23
Costume design	21	Making of musical instruments (not industrial)	22	<b>224 Other languages</b>	23
Design	21	Musical instruments (repairing and tuning)	22	Creative writing (Other languages)	23
Design of industrial products (artistic)	21	Needle craft	22	Interpretation (Other languages)	23
Fashion design	21	Picture framing	22	Linguistics (Other languages)	23
Industrial design (artistic)	21	Silversmithing	22	Literature (Other languages)	23
Interior architecture	21	Stone carving (craft)	22	Sign language (Other languages)	23
Interior decorating	21	Weaving (craft)	22	Translation (Other languages)	23
Interior design	21	Woodcarving	22	<b>225 History and archaeology</b>	23
Stage designing	21			Archaeology	23
Three dimensional design	21	<b>22 HUMANITIES</b>		Comparative literature	23
Window dressing	21	<b>220 Humanities (broad programmes)</b>	22	Cultural history	23
<b>215 Craft skills</b>	22	Humanities	22	History	23
Ceramics (craft)	22	<b>221 Religion</b>	22	History and philosophy of science and technology	23
Conservation of cultural material	22	Religion	22	History of science and ideas	23
Craft programmes	22	Religious history	22	Literature history	23
Crafts, folk arts and artisanry	22	Religious studies	22	Medieval and renaissance studies	23
Decorative metal crafts	22	Study of different religions	22	Museology	23
Embroidery (craft)	22	Study of sacred books	22	<b>226 Philosophy and ethics</b>	23
Fibre, textile and weaving arts	22	<b>222 Languages = 223+224</b>	22	Ethics	23
Floristry (flower arranging)	22	<b>223 National language</b>	23	Logic	23
Glass arts and craft	22	Creative writing (Malay language)	23	Morals	23

Philosophy 23

**227 History, philosophy and related subjects** 23  
= 225+226

## 3 SOCIAL SCIENCES, BUSINESS AND LAW

### 31 SOCIAL AND BEHAVIOURAL SCIENCE

**310 Social and behavioural science (broad programmes)** 24

Behavioural sciences 24

Social sciences 24

**311 Psychology** 24

Conversational therapy 24

Development and child psychology 24

Psychoanalysis 24

Psychology 24

Psychotherapy 24

**312 Sociology and cultural studies** 24

Criminology 24

Cultural geography 24

Cultural studies 24

Demography/population studies 24

Ethnology 24

Futurology 24

Gender studies 24

Geography (social) 24

Human geography 24

Regional cultures 24

Social anthropology 24

Social conflict theory 24

Social geography 24

Sociology 24

Women studies 24

**313 Political science and civics** 25

Civics 25

Human rights 25

International relations 25

Peace and conflict studies 25

Political history 25

Political science 25

Politics 25

**314 Economics** 25

Econometrics 25

Economic history 25

Economics 25

International economics 25

Macro economics 25

National accounts 25

Political economy 25

### 32 JOURNALISM AND INFORMATION

**321 Journalism and reporting** 25

Broadcast journalism 25

Communication 25

Information 25

Journalism 25

Mass communication 25

News reporting 25

Publishing (dissemination of messages) 25

**322 Library, information, archive** 25

Archival sciences 25

Documentation 25

Information science 25

Information searching 26

Librarianship training 26

Library programmes 26

Museum documentation 26

### 34 BUSINESS AND ADMINISTRATION

**340 Business and administration (broad programmes)** 26

Business and administration 26

Business economics 26

Business studies 26

**341 Wholesale and retail sales** 26

Auctioneering 26

Buying and selling 26

Consumer services 26

# Appendix B Numerical Listing of Fields of Education and Training by Programme Contents

Dairy retailing	26	Financial management	27	Performance appraisal	27
Demonstration techniques	26	Insurance	27	Personnel administration	27
Property sales	26	Investment analysis	27	Personnel management	27
Purchasing	26	Investments and securities	27	Public administration	27
Purchasing, procurement and contracts	26	Pension insurance	27	Public and institution management	27
Real-estate business	26	Social insurance	27	Quality management	27
Retailing	26	Stock-broking	27	Recruitment	27
Sales representatives	26	<b>344 Accounting and taxation</b>	27	Start your own business-courses	27
Stock-keeping	26	Accounting	27	Training management	27
Telephone selling	26	Auditing	27	<b>346 Secretarial and office work</b>	27
Ware-housing	26	Bookkeeping	27	Administrative and secretarial services	27
Wholesaling	26	Tax accounting	27	Business correspondence	27
<b>342 Marketing and advertising</b>	26	<b>345 Management and administration</b>	27	Clerical programmes	27
Advertising	26	Administration	27	Court reporting	27
Market research	26	Business administration	27	Data entry	27
Marketing	26	Educational management	27	Foreign language secretary programmes	27
Merchandising	26	Employment management	27	Information processing/data entry	27
Public relations	26	Enterprise training	27	Keyboard skills	27
Sales and marketing	26	Human resources management	27	Legal secretary programmes	27
<b>343 Finance, banking, insurance</b>	26	Local public administration	27	Management support services	27
Bank teller programmes	27	Logistic management	27	Medical secretary programmes	27
Banking and finance	27	Management of education	27	Office automation	27
Business finance	27	Management science	27	Operation of office machines	27
Finance theory	27	Management skills	27	Receptionist training	27
Finance, banking, insurance	27	Office management	27	Secretarial programmes	27
		Organisational theory and behaviour	27	Shorthand	27

Stenography	27	Para-legal studies	28	Environmental science	29
Switchboard operating	28	<b>381 Syariah Law</b>	28	<b>44 PHYSICAL SCIENCE</b>	
Typing	28			<b>440 Physical science (broad programmes)</b>	30
<b>347 Working life</b>	28	<b>4 SCIENCE, MATHEMATICS AND COMPUTING</b>		Physical programmes	30
Clients' needs	28	<b>42 LIFE SCIENCE</b>		<b>441 Physics</b>	30
Company knowledge	28	<b>421 Biology and biochemistry</b>	29	Acoustics	30
Industrial relations	28	Biochemistry	29	Astronomy	30
Introductory courses at work	28	Biology	29	Astrophysics	30
Organisation at work	28	Biometrics	29	Nuclear physics	30
Quality assurance	28	Biophysics	29	Optics	30
Trade union courses (general)	28	Botany	29	Physics	30
Work development	28	Entomology	29	Planetary sciences	30
Working life	28	Genetics	29	Space science	30
		Life sciences	29	<b>442 Chemistry</b>	30
<b>38 LAW</b>		Limnology	29	Analytical chemistry	30
<b>380 Law</b>	28	Microbiology	29	Chemistry	30
Commercial law	28	Molecular biology	29	Organic chemistry	30
Criminal justice studies	28	Ornithology	29	Petrology	30
History of law	28	Parasitology	29	Polymer chemistry	30
Jurisprudence	28	Pharmacology	29	<b>443 Earth science</b>	30
Labour law	28	Toxicology	29	Atmospheric sciences	30
Law	28	Virology	29	Earth science	30
Legal practice	28	Zoology	29	Geodesy	30
Legal studies	28	<b>422 Environmental science</b>	29	Geography (nature)	30
Notary/Notary's practice	28	Ecology	29	Geography (physical)	30



# Appendix B Numerical Listing of Fields of Education and Training by Programme Contents

Geology	30
Geophysics	30
Geoscience	30
Hydrogeology	30
Hydrology	30
Marine science	30
Meteorology	30
Mineralogy	30
Ocean life sciences	30
Oceanography	30
Palaeontology	30
Seismology	30
Vulcanology	30

## 46 MATHEMATICS AND STATISTICS

<b>461 Mathematics</b>	30
Algebra	30
Applied mathematics	30
Data analysis (mathematics)	31
Geometry	31
Mathematics	31
Numerical analysis	31
Operations research	31
<b>462 Statistics</b>	31
Actuarial science	31
Mathematical (theoretical) statistics	31

Probability theory	31
Statistics, applied	31
Survey design	31
Survey sampling	31

## 48 COMPUTING

<b>481 Computer science</b>	31
Computer programming	31
Computer science	31
Computer system analysis	31
Computer system design	31
Informatics (computer science)	31
Network administration	31
Operating systems	31
Programming (computer)	31
Programming languages	31
Software localisation	31
Software testing	31
<b>482 Computer use</b>	31
Computer software use	31
Computer use	31
Internet use programmes	31
Software for calculating (spreadsheets)	31
Software for data processing	31
Software for desktop publishing	31
Software for word processing	31

## 5 ENGINEERING, MANUFACTURING AND CONSTRUCTION

### 52 ENGINEERING AND ENGINEERING TRADES

<b>520 Engineering and engineering trades (broad programmes)</b>	32
Engineering	32
Engineering industry programmes	32
Maintenance engineering	32
Quality control (technical)	32
<b>521 Mechanics and metal work</b>	32
Bicycle production	32
Bicycle repair	32
Boiler making and welding	32
Gunsmithing	32
Hydraulics	32
Locksmithing and safe repairing	32
Mechanical engineering	32
Mechanical trades programmes	32
Metal casting and patternmaking	32
Metal fitting, turning and machining	32
Metal trades programmes	32
Metallurgical engineering	32
Metallurgical technology	32
Micromechanics	32
Precision mechanics	32
Sheetmetal working	32
Steel production	32



# Numerical Listing of Fields of Education and Training by Programme Contents Appendix B

Tool and die making	32	Computer repairing	33	Aerospace engineering	34
Watchmaking	32	Computer engineering	33	Agriculture machinery mechanics	34
Welding	32	Control engineering	33	Air-craft engineering	34
<b>522 Electricity and energy</b>	<b>33</b>	Data processing technology	33	Air-craft maintenance	34
Air-conditioning programmes	33	Digital technology	33	Automotive electricity	34
Climate engineering	33	Electronic data processing	33	Automotive engineering	34
Electrical appliances repairing	33	Electronic engineering	33	Coachwork	34
Electrical engineering	33	Electronic equipment servicing	33	Helicopter construction	34
Electrical fitting	33	Network technology	33	Marine construction	34
Electrical power generation	33	Robotics	33	Maritime engineering	34
Electrical trades programmes	33	Telecommunication technology	33	Motorbike mechanics	34
Energy programmes	33	Television and radio repairing	33	Motorcycle engineering	34
Energy studies	33	<b>524 Chemical and process</b>	<b>33</b>	Naval engineering	34
Gas distribution	33	Biochemical technologies	33	Panel beating	34
Heating trades programmes	33	Biotechnology engineering	34	Shipbuilding	34
Nuclear, hydraulic and thermal energy	33	Chemical engineering	34	Varnish/spray	34
Power production	33	Chemical process engineering	34	Vehicle and motor engineering	34
Powerline installation and maintenance	33	Laboratory assistant programmes	34	Vehicle building	34
Refrigeration programmes	33	Laboratory technician programmes	34	Vehicle diagnostics	34
Solar energy	33	Laboratory technology	34	Vehicle electricity	34
<b>523 Electronics and automation</b>	<b>33</b>	Oil refining	34	Vehicle mechanics	34
Automation	33	Oil/gas/petrochemicals processing	34	Vehicle painting	34
Broadcasting electronics	33	Plant and machine operation (processing)	34	Vehicle repairing	34
Communication systems	33	Process technology	34	Vehicle trimming	34
Communications equipment installation	33	<b>525 Motor vehicles, ships and aircraft</b>	<b>34</b>	<b>526 Civil Engineering</b>	<b>34</b>
Communications equipment maintenance	33	Aeronautical engineering	34	Bridge construction	34

# Appendix B Numerical Listing of Fields of Education and Training by Programme Contents

Bridge construction	34	Brewing	35	Custom tailoring	36
Building construction	35	Butchering	35	Cutting and tailoring	36
Building engineering	35	Cheese production	35	Dressmaking	36
Civil engineering	35	Confectionery	35	Embroidery and needlework (industrial)	36
Constructing plant operation	35	Dairy foods (industrial)	35	Footwear making	36
Construction technology	35	Dairy science	35	Fur making	36
Constructional engineering	35	Distilling	35	Furrier	36
Dock and harbour engineering	35	Food and drink processing	35	Garment production	36
Excavation engineering	35	Food handling/hygiene	35	Knitting (industrial)	36
Irrigation and drainage (construction)	35	Food preparation	35	Leather goods making	36
Quantity surveying	35	Food preservation	35	Leather goods production	36
Road building	35	Food processing industry	35	Leather processing	36
Scaffolding work	35	Food programmes	35	Leather trades programmes	36
Structural engineering	35	Food science	35	Pelt work	36
Technical drawing	35	Food science and technology	35	Saddlery	36
Water supply and sewerage engineering	35	Food technique	35	Sewing (industrial)	36
Water technology and engineering	35	Industrial bakery/flour production	35	Shoe production	36
<b>527 Material Engineering</b>	35	Meat processing	35	Shoe, boot and leather repairing	36
		Pastry cooking	35	Shoemaking	36
		Tobacco processing	35	Skins and leather production	36
<b>54 MANUFACTURING AND PROCESSING</b>		Wine production	35	Soft furnishings	36
<b>540 Manufacturing and processing (broad programmes)</b>	35	Wine sciences	35	Spinning	36
Manufacturing and processing	35	Wine storing/maturing	35	Tailoring	36
<b>541 Food processing</b>	35	<b>542 Textiles, clothes, footwear and leather</b>	36	Textile technique	36
Baking	35	Clothing industry	36	Textile trades programmes	36
Beer brewing	35	Clothing trades programmes	36	Textiles, clothing and footwear	36
		Clothing, apparel and textile working	36		

Upholstery	36	Mineral technology	36	Architecture	37
Weaving (industrial)	36	Mining engineering	36	Building design	37
Wool science	36	Mining technology	36	Cartography/land surveying	37
<b>543 Materials (wood, paper, plastic, glass)</b>	36	Oil and gas extraction	36	City planning	37
Boat building (non-motor)	36	Quarry supervision	36	Community development	37
Cabinet making	36	Raw material extraction	36	Community planning	37
Cane willow and bamboo work	36	<b>545 Applied science</b>	37	Landscape architecture	37
Carpentry (non building)	36	Applied chemistry	37	Rural development	37
Ceramics (industrial)	36	Applied physics	37	Structural architecture	37
Furniture crafts	36	Bio-composite technology	37	Surveying	37
Furniture making	36	Biomolecular science	37	Topography	37
Glass production	36	Biotechnology	37	Town and country planning	37
Glass working (industrial)	36	Chemistry (forensic analysis)	37	Town and regional planning	37
Industrial diamond production	36	Environmental technology	37	Town planning	37
Paper manufacturing and processing	36	Furniture technology	37	Urban planning	37
Plastic manufacturing	36	Industrial chemistry	37	Urban studies	37
Rubber processing	36	Industrial physics	37	<b>582 Building</b>	37
Stone cutting	36	Marine technology	37	Bricklaying	37
Synthetic fibre manufacturing	36	Materials technology	37	Brickwork and masonry	37
Timber technology	36	Plantation technology and management	37	Building maintenance	37
Wood machining and turning	36	Polymer technology	37	Building renovation	37
Wood technology	36	Textile technology	37	Building technology	37
Woodwork trades programmes	36	<b>58 ARCHITECTURE AND BUILDING</b>		Carpentry and joinery (building)	37
Woodworking and carpentry	36	<b>581 Architecture and town planning</b>	37	Cement working	37
<b>544 Mining and extraction</b>	36	Architectural urban design and planning	37	Constructional metalwork (building)	37
Coal mining	36			Demolition	37

# Appendix B Numerical Listing of Fields of Education and Training by Programme Contents

Floor and wall tiling	37	Agriculture	38	Soil science	38
Floor covering	37	Agronomy and crop science	38	Vegetable plantation	38
Glazing	37	Animal breeding	38	Vineyard construction	38
Insulation	37	Animal husbandry	38	Viticulture	38
Joining and carpentry	37	Animal training	38	Wine growing	38
Mason and tile setting	37	Basic skills in agriculture	38	<b>622 Horticulture</b>	38
Masonry	37	Crop husbandry	38	Floriculture	39
Painting and wall covering	37	Dog breeding	38	Gardening	39
Pipe fitting	37	Farm and ranch management	38	Greenhouse operations	39
Plastering (building)	37	Farm maintenance	38	Greenkeeping	39
Plumbing	37	Farming	38	Horticultural technique	39
Roof fixing	37	Fruit growing	38	Horticulture	39
Sanitation (building)	37	Fruit production	38	Landscape gardening	39
Stonemasonry	37	Goose keeping	38	Maintaining sports turf	39
Technical drawings (buildings)	37	Grain growing	38	Nursery management (horticulture)	39
Ventilation (building)	37	Horse breeding	38	Production of ornamental plants	39
		Horse husbandry	38	Sports grounds maintenance	39
		Irrigation techniques	38	Turf cultivation	39
		Orchards construction	38	Turf management	39
		Pig farming	38	<b>623 Forestry</b>	39
		Poultry husbandry	38	Forest keeping	39
		Race horse care	38	Forest product techniques	39
		Rye and wheat growing	38	Forest ranging	39
		Sheep farming	38	Forestry	39
		Soil and water technician programmes	38	Hunting and trapping	39
		Soil fertility	38	<b>624 Fisheries</b>	39
<b>6 AGRICULTURE AND VETERINARY</b>					
<b>62 AGRICULTURE, FORESTRY AND FISHERY</b>					
<b>620 Agriculture, forestry and fishery (broad programmes)</b>	38				
Agriculture, forestry and fishery	38				
<b>621 Crop and livestock production</b>	38				
Agricultural business/agribusiness operations	38				
Agricultural economics	38				
Agricultural sciences	38				

Deep sea fishing	39	Bacteriology	40	Plastic surgery	40
Fish breeding	39	Cardiology	40	Preventive and social medicine	40
Fish farms	39	Cytology	40	Psychiatry	40
Fish husbandry	39	Dermatology	40	Stomatology	40
Fishery	39	Epidemiology	40	Surgery	40
Fishery science and technology	39	Forensic medicine	40	Training of doctors	40
Mariculture	39	General medicine	40	Training of physicians	40
Shellfish breeding	39	Gerontology	40	<b>722 Medical services = 725+726+727</b>	41
		Gynaecology	40	<b>723 Nursing and caring</b>	41
<b>64 VETERINARY</b>		Haematology	40	Assistant nursing	41
<b>640 Veterinary</b>	39	Histology	40	Basic nursing	41
Animal health care	39	Homeopathic medicine	40	Care of old people	41
Animal reproduction (science)	39	Immunology	40	Care of the disabled	41
Veterinary assisting	39	Internal medicine	40	Community nursing	41
Veterinary medicine	39	Medical science	40	Elder care	41
Veterinary science	39	Medical training	40	Gerontological services	41
		Medicine	40	Health care programmes	41
		Naturopathic medicine	40	Hygiene, medical	41
		Neurology	40	Infant hygiene (nursing)	41
		Obstetrics and gynaecology	40	Midwifery	41
		Oncology	40	Mothercraft nursing	41
		Ophthalmic	40	Nursing	41
		Ophthalmology	40	Nursing aide/Orderly	41
		Paediatrics	40	Psychiatric nursing	41
		Pathology	40	<b>724 Dental studies</b>	41
		Physiology	40	Clinical dentistry	41
<b>7 HEALTH AND WELFARE</b>					
<b>72 HEALTH</b>					
<b>720 Health (broad programmes)</b>	40				
Health	40				
Public health programmes	40				
<b>721 Medicine</b>	40				
Anaesthesiology	40				
Anatomy	40				
Audiology/hearing sciences	40				

## Appendix B Numerical Listing of Fields of Education and Training by Programme Contents

[illegible]



# Numerical Listing of Fields of Education and Training by Programme Contents Appendix B

Bar service	43	Diving (sport)	44	Beauty therapy	44
Bartending/mixology	43	Football playing	44	Cosmetic services	44
Catering	43	Gymnastics	44	Cosmetology	44
Cooking (restaurant and hotel-type)	43	Jockeying	44	Fitness and weight control	44
Culinary arts	43	Physical training (sports)	44	Fitness services	44
Food and hospitality services	43	Sport leadership	44	Hairdressing	44
Food serving	43	Sport trainer training	44	Make-up	44
Hospitality services	43	Sports	44	Manicure	44
Hotel and restaurant programmes	43	Sports coaching	44	Massage (beauty)	44
Hotel receptionist training	43	Sports instructor training	44	Pedicure	44
Hotel services	43	Umpiring and other sports officials training	44	Salon services (beauty therapy)	44
Hotel/motel and restaurant services	43	<b>814 Domestic services</b>	44	Wig making	44
Waiting and bar service	43	Caretaking, housekeeping, homeservice	44		
<b>812 Travel, tourism and leisure</b>	43	Chimney sweeping	44	<b>84 TRANSPORT SERVICES</b>	
Ground crew training (airport)	43	Cleaning	44	<b>840 Transport services</b>	44
Guiding, tour leading	43	Consumer economics	44	Air crew programmes (flying and navigation)	44
Leisure and tourism	43	Cooking (home)	44	Air traffic control	44
Recreation and leisure	44	Domestic science	44	Aircraft operation	44
Recreation management	44	Dry-cleaning	44	Aviation	44
Tourism	44	Funeral services and mortuary science	44	Bus and coach driving	44
Tourist trades programmes	44	Home economics	44	Cabin crew training	44
Travel agency services	44	Laundry	44	Communication (air, railway, road etc.) programmes	44
Travel and tourism	44	Needlework (home)	44	Crane driving	44
Travel services	44	Sewing (home)	44	Driving programmes	44
<b>813 Sports</b>	44	<b>815 Hair and beauty services</b>	44	Flying and navigation	44
Bookmaking (horses etc)	44	Barbering	44	Fork-lift driving	44



# Appendix B Numerical Listing of Fields of Education and Training by Programme Contents

Mail operations	44	Noise pollution control	45	Fire-protection (fire fighting)	46
Nautical science	44	Recycling	45	Law enforcement	46
Navigation technologies	44	Water pollution control	45	Life guarding	46
Postal service	44	<b>852 Natural environments and wildlife</b>	45	Police work	46
Railway operations	44	Conservation and land management	45	Policing studies	46
Road motor vehicle operations	44	National parks and wildlife management	45	Prison work	46
Seamanship	45	Nature conservation	45	Public security	46
Seamen programmes	45	Wildlife management	45	Security and loss prevention services	46
Ship operation	45	Wildlife ranger studies	45	Security guarding	46
Stewardess/steward training (air)	45	<b>853 Community sanitation services</b>	45	<b>862 Occupational health and safety</b>	46
Transport programmes	45	Garbage disposal	45	Ergonomics (occupational health and safety)	46
Truck driving	45	Hygiene, community	45	Health and safety in the work place	46
<b>85 ENVIRONMENTAL PROTECTION</b>		Hygienic standards	45	Industrial welfare	46
<b>850 Environmental protection (broad programmes)</b>	45	Refuse collection	45	Job safety	46
Environmental conservation	45	Refuse/sewage disposal	45	Labour protection	46
Environmental protection	45	Sanitation, community	45	Labour security	46
Environmental studies	45	Street cleaning	45	Labour welfare (safety)	46
Natural resource use programmes	45	Water supply (service)	45	Occupational health and industrial hygiene	46
Natural resources conservation	45	<b>86 SECURITY SERVICES</b>		Occupational health and safety	46
Soil and water conservation	45	<b>860 Security services (broad programmes)</b>	45	Stress at work	46
<b>851 Environmental protection technology</b>	45	Security services	46	Work environment	46
Air pollution control	45	<b>861 Protection of persons and property</b>	46	<b>863 Military and defence</b>	46
Ecological technology	45	Civil security	46	Army training	46
Environmental control	45	Customs programmes	46	Defence studies	46
Environmental protection technology	45	Diving (professional)	46	Military science	46
Industrial discharge control	45	Fire technology	46	National security	46
				War theory	46





**MINISTRY OF HIGHER EDUCATION**

Research and Planning Division

Block E3, Parcel E

Federal Government and Administrative Centre

62505 Putrajaya

MALAYSIA